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ABSTRACT

A broad educational background is necessary to meet ever changing occupational fields, and career education is an approach incorporating career information within regular school curriculum. For the elementary level, career awareness is the main thrust in this program to integrate students and community. The format for grade five, performance objectives and criterion test rationale, and major objectives are included in the introduction. The teacher aids section provides suggestions for both group and individual activities, and the guidance component includes eight activities planned as a guidance kit directed towards self-understanding and awareness of interpersonal relations and independence. The career units cover seven occupational clusters: 10 introductory activities; 40 activities in construction occupations (architect, carpenter, electrician, plumber, bricklayer, cabinet maker, sheet metal worker); 24 activities in farming occupations (dairy farmer, rancher, farmer, butcher, and meat packer); 25 activities in health (dietitian, nurse, physician, pharmacist, and psychiatrist); 22 activities in industrial occupations (assembly line worker, machinist, welder, paper machine operator, and steel worker); seven activities for baker; five activities for fish hatchery manager; 13 activities for television, radio announcer, and television repairmen; 12 activities for airline employees; eight for soil conservationist; eight for meterologist; and six for tire industry worker. (JB)

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CAREER AWARENESS

Grade 5

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BOISE IDAHO

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CAREER AWARENESS

Grades 1 - 6

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Grant #261022L

PREFACE

The Career Awareness curriculum in this book was developed through a "Part C" grant from the U. S. Office of Education from March, 1972 through June, 1973, and administered by the Idaho State Department of Vocational Education. The units were developed and written by Boise Independent School District personnel with the exception of the introductory unit at the beginning of each grade. These six units were assembled from Career Education: An Idea Book, K-6 Resource Guide Project Committee, Portland Public Schools, Oregon. The activities included in this book are some of the ideas relating to careers which are being used to some degree in many classrooms. It is the purpose of this program to gather many of these ideas and make them available to all teachers in an integrated format within most subject areas.

The project has been evaluated by a third party evaluation team, Educational System Planning of Eureka, California, as required by the project. The interim evaluation report in March, 1973 stated, "The major conclusion regarding this project is that it seems to be an overwhelming success and is providing a viable model for relevant education for students as well as meeting the Career Education Awareness objectives."

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Audrey Harvey, Grade 1
Barbara Diener, Grade 2
Opal McIntyre, Grade 3
Joyce Swensen, Grade 4
Gordon-Pierce, Grade 5
Grant Simonds, Grade 6

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Irene Windisch, project secretary - for suggestions, corrections and coping with hundreds of revisions.

George Washburn
Career Awareness Project Director

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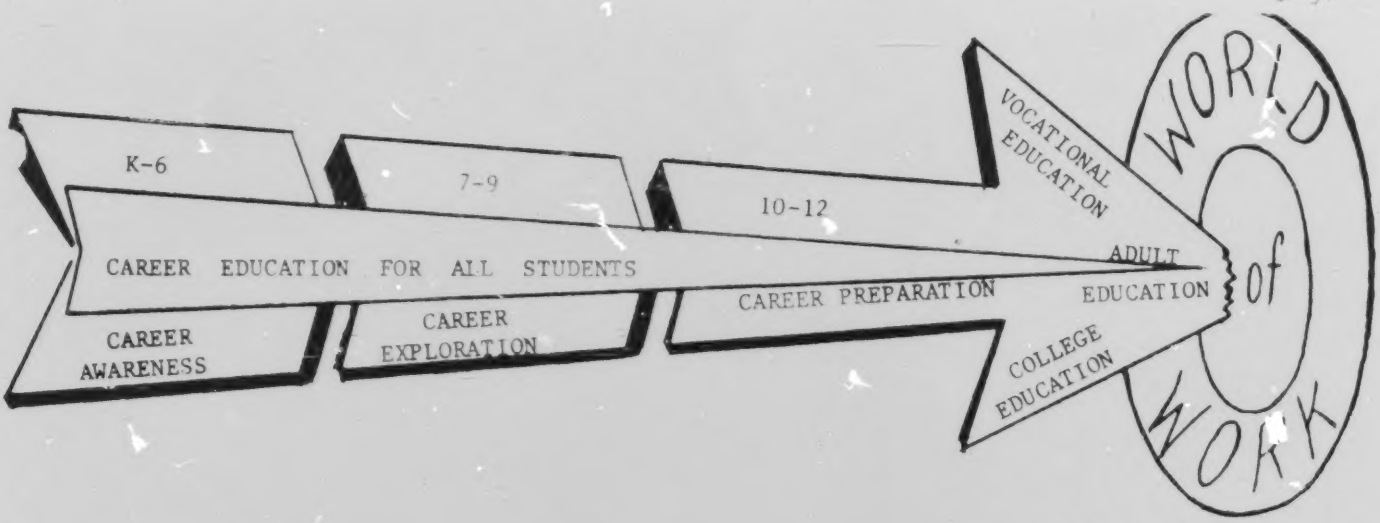


ELEMENTARY

CAREER AWARENESS: An on-going program integrated into the regular school curriculum utilizing all disciplines. The major emphasis is to take students into the community and to bring the community into the classrcom. Self development and understanding is stressed. Activity and student involvement is the theme.

JUNIOR HIGH SCHOOL

CAREER EXPLORATION: Implementation of an inderdisciplinary "hands-on" Career Exploration and Orientation program. Utilization of a Career Guidance Center, community exploration and major subject area involvement.

SENIOR HIGH SCHOOL

CAREER PREPARATION: Skills training, an on-going program with classes in the following cluster areas:

Food Service
Marketing
Health Occupations
Mechanical and Repair
Service

A Career Guidance Center involving students, faculty and community in the career decision making process.

INTRODUCTION

Why Career Education?

Young people of today are leaving school and facing an ever increasingly complex industrial world. In many instances, though they have taken the prescribed curriculum, they are not adequately prepared to meet the demands of this complex industrial world. Students for the most part are unaware of the many career opportunities that are available to them. They are unaware of those areas that best fit their particular talents and personality. They are unaware of what is necessary to be successful in an occupational role. Students are also unaware of how choosing a career can affect many facets of a person's life such as his leisure time activities, where he lives, his friends, etc. A broad educational background is necessary to meet the ever changing occupational fields; however, students often fail to see the relationships between the courses they are taking in school at the time they are taking them and the real world. Career Education can be a practical means of meeting the needs of these young people.

One of the major goals of education is to provide each student the opportunity to acquire the skills and attitudes necessary for him to make a livelihood regardless at which level of the educational system he leaves. The public school has a unique role to play in the development of these skills and to assist in the process of career decision-making for each individual.[1]

Career Education is an integrated planned approach of incorporating career information within the regular school subjects. It will relate the school subject to the world of work in such a way the student can best see an additional need and purpose for the subject. It should help provide further incentive for that student to get the most out of every discipline in his school day. In addition, it can help focus on the need for further study in related subject areas which will prove helpful for eventual career choices, interests, and life styles.

Career education is not a program for high school seniors in their last semester before they face the world of work. Choosing a career begins with knowing what is available, studying the possibilities, and experiencing the work situation first hand.

1. CAPES State Department of Education, Olympia, Washington

Pre-school children's play revolves around work roles, they are curious and open-minded to all possibilities. Elementary school is the period to make children aware that there are more possibilities than the fireman, policeman and postman. It is the beginning step in the developmental process of career choice. Junior high school students can explore areas of work in some detail that most interest them. They should be able to look at a job first hand, try it out, decide if it is what they assumed it would be. Through looking into these areas through regular school subjects, students will be able to make more realistic choices of high school subject areas, - those that will be most beneficial to their future aspirations.

Career education, then, focuses upon the importance of introducing adequate work-related experiences for children from the time they enter school. The intent is not to force a student into an early decision, but to give him a wide base of experience so that when he does make a decision, it will be a realistic one supported by a background of many experiences.

The program involves individual and group counseling opportunities throughout the students' schooling. Since most people who lose their jobs do so through interpersonal relationship problems, the counseling component will stress self awareness and understanding, cooperation and many other aspects necessary for social and occupational fulfillment. Specific occupational guidance is only one portion of the program objective. The larger goal is the student's understanding of those attributes necessary for a successful life.

The aim of career education is not to add to an already crowded curriculum, but to provide a way in which skills that are already taught can be associated with the world of work.

CAREER AWARENESS FORMAT -- Grades 3 - 6

The purpose of career awareness is to develop an appreciation for the entire world of work throughout the United States. To insure a broad coverage of all aspects of work, the clusters developed by the United States Department of Health, Education and Welfare are employed. These are:

Business and Office
Consumer and Home-making Related
Communications and Media
Fine Arts and Humanities
Hospitality and Recreation
Environmental Control
Personal Service
Manufacturing
Transportation
Health
Public Service
Agri-Business and Natural Resources
Marine Science
Construction
Marketing and Distribution

Within these clusters a range of specific jobs is covered which are representative of similar jobs in other occupational areas and can also lead to discussion of other jobs in that specific industry. The intent is to show the relationships of these occupations with the specific job being studied.

Each of these grade levels contains twenty-six or more occupational units. They are assigned to a particular grade level because it was felt they correlated best at that level considering all the subject areas. This is by no means to preclude a teacher from studying an occupation in another grade if she desires; however, the materials and trips in connection with career awareness must remain in the assigned grade level.

Because of the necessity of scheduling materials, the occupations have been grouped generally in units of four. A few, as an example groups 1 and 7 in grade five, have three units because some areas within these are particularly involved and lengthy. You should have a schedule of units for the year specifically for your building. The materials will be in constant use throughout your area of the district which means we must adhere to the schedule if all are going to become involved in the program.

You will receive materials for a group of units for approximately a five week period. At the end of that time these materials will be picked up and taken to another school by the technician. At that time you will receive another set. It is up to the teachers within the buildings to schedule these groups of units among themselves. Grades 3, 4, and 5 have an extra unit which might be used if you will contact the technician. The technician is also available for classroom help and direction.

Each unit in this curriculum has from 5 to 15 activities. The activities are flexible and can be worked on a one-a-day basis or however the teacher wishes to introduce them. You, as a teacher, are to choose from among the activities those that best fit your teaching style and present curriculum. It is not anticipated that you will use all activities as time will probably not allow this, but it is hoped you will consider many of them. It is emphasized that one of the main purposes of the program is to show a relationship between school subjects and careers; therefore, the activities are designed to be taught within subject areas. Creating a "career subject" is discouraged.

Some films and filmstrips are to be ordered from Boise Schools IMC. These are the ones listed on the materials page with an IMC number. The teacher will do the ordering of these since we won't know the exact day you will need them. There are also films listed from Boise State College. Remember the B.S.C. films are rental. Perhaps a rented film could be used by all of one grade level for the three days you have it.

There are some field trips scheduled in your curriculum guide. The career awareness technician will schedule and make arrangements for these trips for you. Since there will be many field trips in grades 1 - 6 into the business community, we would like to schedule at their convenience so we don't overload one business. It might become necessary and desirable to have only a portion of your class take a field trip and report back to the others. An example would be if one-third of all fourth grade classes go to a pottery shop. This would mean one trip to that business rather than three. These instances would only be necessary in cases where there might be only one such business in the area. We are certainly open to suggestions of field trips not on our schedule. Also it the trip scheduled proves to be an impossible time, contact the CA office a few days in advance so other arrangements can be made.

We would encourage many resource speakers coming to the classroom to describe their work, especially parents. At the beginning or the year you will be asked to send a prepared letter home to ask for speaker volunteers. These parents will be used within your building though not necessarily in your class. The more community involvement, the more support for the entire educational program. The technician will schedule these speakers for you, or if you desire to do the

scheduling, feel free to do so.

The career awareness curriculum is in a constant state of revision. If you have tried a successful activity that is not in this guide, let the CA office in on it. In turn, we will inform others. We are also looking for materials which enhance the educational program.

The success of the career awareness program depends on the involvement in your classroom. The purpose of our services is to help you become involved with a minimum of extra work. If we are not adequately providing this service, bring it to our attention.

The following is a statement from Joyce Swensen, fourth grade teacher in the pilot program at Garfield Elementary School. It reflects the statements submitted by all the pilot teachers.

"From the standpoint of the teacher, I would be very happy to incorporate Career Awareness into the existing curriculum. I have been pleased with the way it enhances the subject matter we ordinarily study in the fourth grade. The field trips, resource persons, and interesting projects we have carried on, have greatly added to the appeal and knowledge of the subject matter. Classroom management has been better because of interest. Discussion of behavioral expectations and evaluations have also helped.

"I am not saying extra effort is not required on the part of the teacher. It is. However the CA program has helped me to become more organized and able to meet deadlines. Flexibility is required, but I think it is good. With the CA office making arrangements for materials, resource persons and field trips, the job has been much, much easier.

"The community has become increasingly aware and involved with what is happening in the classroom. My experience has been that this program has made many friends for the school district.

"Adapting existing curriculum around careers has not decreased knowledge in the core subjects, but has added meaning to the need for it. With sharpened interest, learning is speeded up.

"Students are very much in favor of continuing in career awareness programs - as are parents. Absenteeism has been greatly reduced this year. I feel interest has much to do with it.

"Scholarship does not seem to change to a great degree. Good students will probably do well under most any type of classroom organization. Poor and average students, I feel, have done better. Vocabulary has increased greatly.

"Knowledge and awareness of jobs and careers has greatly increased. Students are aware of the world of work and the respectability and desirability of working and doing a good job in any field. I feel this has been our goal and it has been reached."

PERFORMANCE OBJECTIVES AND CRITERION TESTS RATIONALE

The rationale for this particular evaluation system is that criterion tests should not only determine performance, but also contribute to the students ability to perform. That is, whenever possible, criterion tests should be learning activities. It will be apparent that if a child merely participates in many of the suggested activities (criterion tests) that he has met the stated objective. They are written in such a manner that participation would be impossible without using the knowledge and abilities called for in the objective.

This is an effort to move away from traditional measures of performance inorder to better evaluate what conceptual knowledge the learner has acquired. To often we not only measure his conceptual understanding of the material, but inadvertantly, by the type of test we give, measure his reading, writing, and verbal skills. By providing several types of tests (activities) the teacher is free to choose which one will best allow a particular child to communicate his degree of conceptual understanding. If increased proffiiency in reading, writing, and verbal skills are not one of the project objectives, then they should not figure into the evaluation. This system provides a child with a better chance of successfully demonstrating the conceptual understanding called for in the objective regardless of his reading, writing, or verbal skill

These criterion tests, as written, reduce the likelihood of a child "feeling good" about what he is learning, and then failing because of low skill in another area such as reading and writing. He can now demonstrate in a variety of acceptable ways, that indeed he does understand!

If a teacher is in doubt about whether or not a particular student "has" met an objective during a group evaluation activity, the teacher can evaluate by exception. This could take the form of individual conferences or some written activity. This allows the teacher to save time in evaluation since only the exceptions are "spot-tested", the rest of the students are assumed to have

"learned" if they complete the criterion test.

The hardest part of this criterion evaluation system is for the practitioner to over-come the mental set that evaluation must be of the Normative (standardized) type. In criterion evaluation the practitioner decides what is an acceptable indication of a student having "learned" and does not need worry about "item analysis, validity, reliability etc.," in the normative-evaluation sense. The normative-evaluation is being done by the use of pre-tests and post-tests. The type of criterion-evaluation used here is legimate and is being used more and more in education.

Criterion Tests

The objectives that are being tested state what the student is expected to be able to do when he has achieved the objective. The tests are designed to measure only what is stated in the objective. In this way, the student and teacher both know what is expected and what will be tested.

Criterion tests evaluate what a student does or does not do. Students are not evaluated against national norms or the achievement of other students.

The objective is stated at a level of specificity so that the completion of an objective is determined by either yes or no. In a criterion test, it is not possible to achieve an objective at 70, 80, or 90 percent. Therefore, test results state what a student can demonstrate, not the percentage of demonstration or how he performs compared to other students.

The percentage is a determination of program success and is not a concern of the teacher on a day-to-day evaluation basis, which is either 100% achievement by an individual or "not yet achieved".

CAREER AWARENESS -- OBJECTIVES

GRADES III. -- VI.

1. To develop a positive attitude of self worth.

2. To develop positive attitudes toward the world of work.

3. To develop the attitude that all work is meaningful and contributes to society.

4. To develop the appreciation of the dignity and worth of honest work.

5. To develop the idea that cooperation, responsibility and dependability are necessary in school, on a job, and in everyday life.

6. To develop the idea that people work for numerous rewards and satisfactions.

7. To develop the idea that school is an important part of preparation for a career.

8. To develop the idea that most careers will require special training.

9. To develop an understanding that some workers produce goods, others perform services.

10. To develop technical literacy of terms used in the exploration of careers.

11. To understand that while all jobs are important, they also all have a different character.

12. To help develop an understanding of our free enterprise system of economics.

13. To understand that most people work toward careers in which they have special interests and special talents.

14. To understand that all workers are dependent on one another.

15. To develop the ability to understand that occupations are interrelated in a wide variety of ways.

16. To develop the understanding that there is constant change in job fields and that this change is healthy.

17. To develop the understanding that continual education will be necessary for any career.

18. To develop an understanding of the role all curriculum disciplines play in careers.

19. To develop the attitude students will develop realistic goals in the light of interests and abilities as they progress through life.

20. To develop the understanding that different jobs require different abilities.

21. To provide a wide and varied interest that will open up an expanded base for career choice.

22. To encourage students to express goals and aspirations.

23. To encourage students to do individual in-depth study of areas of interest.

24. To provide information, observational experiences and experimentation in the clusters of the world of work.

25. To develop a degree of skill in the use of tools, equipment, and supplies that workers use in the performance of their jobs and have practical experiences in each.

TEACHER AIDS

HINTS TO TEACHERS -- GROUP ACTIVITIES

In the career awareness materials there are many small group activities to be carried out by the students. Because students have learned to function individually and for their own goals, learning to participate productively within a group and for group goals calls for special efforts by the teacher.

Children do not adapt naturally to small group efforts. As they have learned to compete for grades and have generally been taught that sharing answers is wrong, the new concept of cooperation and group goals calls for re-education. Many adults do not know how to work in groups, so be patient and encouraging with children in this endeavor.

Some Hints:

1. Try not to expect complete success on the first attempt.

2. Try to have several consecutive group activities increasing in complexity.

3. On the first attempt do not expect the children to share materials, i.e. globes, maps. Provide each child with his own materials, but utilize a group summary sheet.

4. Plan with the class ahead of time. Involve the students in planning and don't merely tell them. List goals on the blackboard.

5. Encourage groups to choose a leader. In older groups involving complex activities, a recorder may also be needed.

6. After the group experience, meet back with the class. Ask them how the experience went and what they think the problems are. Recognize the groups who worked well together and site examples of cooperative group techniques. Evaluate on a group basis. If individual grades within a group are given, it will only encourage the good students to do their own work. Remember we are doing the activity to develop sharing and cooperativeness.

7. It also might be helpful to discuss the roles of leader and recorder with the class. Have the class discuss characteristics they like and dislike in a leader. Possibly this should be done at the beginning of the second activity rather than the first so that too much is not given at the beginning. Over planning can be as detrimental as underplanning!

INTERVIEWING:
A BASIC INSTRUMENT OF INQUIRY

As you organize how the content of your instruction will be accessible to the children, your plans may include the use of community talent. Interviewing skills might have to be taught in order to facilitate your plans. Perhaps the most obvious skill involved in interviewing is asking appropriate questions.

The following lists of questions may help you, your talent, and your class get started with this important tool of communication.

One set of questions is designed for children who are learning to interview. It can also be presented to the talent prior to his visit.

The second group of questions is designed for conducting a group or class conference with talent in school or at the resource site.

The depth and quality of interview will depend, of course, upon the preparation each interviewer has in the area the talent represents. Motivation to find out will be an important factor. Those who are avidly curious will push the process of inquiry to its appropriate limits.

Certain questions will be appropriate to some talent areas and not to others. However, there is a commonality to the process of interviewing and a teacher can guide students to learn many of the general communication skills necessary for effective interviewing.

The last section on evaluation has proved helpful in setting standards for learning performance and increasing the visibility of the inquiry process.

Prepared by ABLE Model Program, Northern Illinois University

ROLEPLAYING

Interviewing situations within the secure learning atmosphere of your classroom is a safe, sure-fire way to get started. Children will be more free to explore if you approve their growing pains and sufferings in a "petri dish" wherein no harmful consequences may befall them. Whereas outside talent may be threatening to the development of tender thoughts and feelings, your warm support of the child as a learner will help the light to shine. Then, from trust and self-confidence, appropriate forms of behavior will develop.

Roleplaying is not only a process by which to learn the skills of interviewing; it is also protection for the learner (and the teacher) so that learning procedures may be started away from the foreboding consequences of direct encounters.

Thus, the darkness of our classrooms might first be penetrated by "artificial" light - roleplaying. When interviewing skills have been sufficiently shaped by this careful nurturing process, emergent behaviors can be brought into the "real" world for trial. Pre-stressed performance skills can be laced into the varied activities of the school year. If this is done on a regular basis, the teacher need not fear that the children's efforts will dissipate or dissemble when tested by adult characters in real settings.

Tapes of children interviewing each other are easy to make and allow for healthy criticism of learning performance. Dittoed sheets of questions with spaces for responses also offer tangible supports. "Friendly" school personnel can be used for practice.

A teacher can build a platform of appropriate materials for one class, then use it many times with the same group or use it to introduce new concepts to other groups. Also, prepared tapes (of actual interviewing) are available from commercial sources. At this point, however, we'd rather help you develop your own materials. As teachers ourselves, we think we understand something about this business of innovation. Usually, the greatest fears we have to encounter are our own.

Prepared by ABLE Model Program, Northern Illinois University

COMMUNICATING WITH TALENT

1. What do you do on the job? (Children are interested in how school-taught skills fit in with real work).

2. What kind of thinking prompted you to take this job? Did others agree with your thinking?

3. What tools do you use? Is there a special way of talking about your work?

4. Was this your first job choice? How many times did you change your mind about what you wanted to be before you went to work? Why?

5. What part of your job do you like best? Why? What part of it do you wish you didn't have to do? Why?

6. Who depends upon your work? Upon whom do you depend for your work?

7. What experiences and training on this job might prepare you for some other kinds of jobs should you ever want to change?

8. How does your job affect your personal life? Do you have to work nights? Are you tired when you get home? Do you have noise during the day so that you need quiet at home at night? Do you have a job where you have to be nice to people all day even people who are crabby and ill-mannered?

9. What inventions could put you out of work?

10. Are men with your kinds of skills usually needed - even when business may be bad? Is your work at all seasonal? Where could you work in this occupation? Is your work limited to geographical areas?

11. What kind of education is necessary for this kind of work? Apprenticeship? Trade school? College? Advanced degrees? Is there any personal quality for this job that is really more important than diplomas?

12. About how much money can a man earn in this kind of work? (Under $5,000, $5,000 to $10,000, over $10,000 - an estimate so that the children can get an idea.) Is there a chance of getting a lot of money all at once?

13. When does your boss compliment you? (or when do you compliment your employees?) When are people fired?

Prepared by ABLE Model Program, Northern Illinois University

GROUP CONFERENCING WITH TALENT

When a resource person is sharing information with a group of students in a conference setting, it might be helpful to send the talent a list of the questions the class is considering. Your note can explain that the purpose of the meeting is to get some information about an occupation from a person actively involved in that occupation.

Familiarize your students with the list "Questions for Group Conferences" (next page). Ask the students to mark those they would like to ask. Questions should be asked with the understanding that the resource person does not have to answer. The resource person should be informed, in the presence of the students, "If we ask any questions that you prefer not to answer, just smile and say 'next question, please!'"

Each interview will be a new opportunity for ideas to develop. Your analysis of the growing threads of the discussion and your firm, but subtle leadership toward target goals will move irrelevant talk towards fruitful discourse.

Be alert to step in and help facilitate communication if you see either the students or the resource person is not understanding what the other has said. Feel free to ask questions of your own to clarify answers whenever it is desirable to do so.

If you explain the reasons behind children's questions, talent and students will sketch more appropriate pictures in their mind's eye. As you relate their brief ideas into areas of class concern, shy talent (or students) and the academic activities of your classroom will be pulled together. The teacher has to be the bridge.

Naturally, overmanagement of social amenities can produce puppet performances and turn talent sour. Teachers, interested in effective affective as well as cognitive behavior, will enhance instruction through their managerial artistry. Vigor and sparkle is almost assured as the style of the teacher and the talent of the community are stirred into planned activities.

Young children can move curiosity into inquiry, inquiry into the academic domain, and the academic performance into healthy character and career development. The bridge to becoming has to be built upon, with and for people.

Prepared by ABLE Model Program, Northern Illinois University

QUESTIONS FOR GROUP CONFERENCES

What schools did you attend?

What is your present job?

How did you get it?
How long have you worked there?
What time did you go to work this morning?
What was the first thing you did?
How long did it take?
What did you do next?
(Follow through the entire day.)
Did you do anything yesterday that was different from what you did today? Does this happen often?
What else do you do on your job?
Of all these various duties, which ones take most of your time?

What changes have taken place recently? Do you foresee any in the near future?

What things do you like most about your job? Least? Are there any hazards?

What is the usual starting salary in jobs like yours?

What qualifications do you need to get the job?
Age? Sex? Height? Weight? Other?
Marital status? Tools? License? Aptitudes?
Unions? Discrimination? Veterans? Capital?

Preparation? Minimum? Desirable? Time? Cost? Content?
Approved schools? Preferred subjects?

Supply and demand for workers? Outlook for the future? Advancement?

Hours? Regular? Overtime? Evening? Sunday? Holiday? Steady or seasonal?

Is there anything we should have asked? What would you like to ask us?

adapted from material in Occupational Information by Robert Hoppock, McGraw-Hill Book Company, 1967

EVALUATING INTERVIEWING SKILLS

How do you know when children have learned to interview? How can you tell they are making progress toward that accomplishment?

Local conditions shape standards. Different criteria have to be applied depending upon individual expectations so your view of children's performance will determine an assessment of their progress and achievement. To help you focus upon visible evidence, the following questions are offered:

1. Can the child roleplay the interviewing process?
   a. Does the "interviewer" question with a purpose?
   b. Does the "interviewer" follow a strategy?
   c. Does the "interviewer" show appreciation for the feelings of the person being interviewed?

2. What products show that the child is "interviewing"?
   a. How are the interviewed person's thoughts recorded?
   b. How is the interview reported to others?

3. Can the child explain interviewing skills in writing?
   a. Are the steps in interviewing set out in an orderly manner?
   b. Can the child judge his own talents against what has been set out for the class?

4. Does the child use interviewing skills in voluntary situations?
   a. Are ordinary encounters turned into learning situations?
   b. Does the child seek interviewing situations?

5. Does the child read "interviews" in newspapers and magazines or watch "interviews" on television?
   a. Does he volunteer information about media presentations that highlight interviews?
   b. Does he share what he has experienced (seen, read or heard) with others?

6. Does the interviewed person send feedback to the teacher and/or class?
   a. Are expressions directed to the content of the interview? . . . the studies of the class?
   b. Are expressions directed to the interviewing process?

7. Does the child express a hope to work in an occupation which requires interviewing skills? (Sales? Receptionist? Teaching?)

Prepared by ABLE Model Program, Northern Illinois University

WHY SHOULD YOU GO ON A FIELD TRIP?

To be worth the time you spend, a field trip must meet a specific need of the group. It can stimulate an activity, help in the search for more information, or pull together diverse activities of a class into a unifying whole.

Field trips can help your group:

1. add to your reality experiences by seeing and feeling things you read and talk about.

2. learn to interview workers and observe how people work together.

3. see how adults carry out their responsibilities.

4. correlate skills and other curricular areas with experience in meaningful situations.

5. give children an opportunity to work together outside the classroom, to meet friends in a different atmosphere, to practice skills in human relations in real settings.

WHAT KINDS OF FIELD TRIPS BEST SUIT YOUR NEEDS?

A field trip may be:

1. within the school itself to get acquainted with the building, the grounds and the personnel.

2. in the school neighborhood to sharpen observation of the child's immediate environment.

3. to another school to exchange experiences or to introduce a group to another school situation.

4. outside of his immediate school neighborhood to explore an area of interest in a more distant part of the city or its surrounding area.

Field trips might be suggested to small groups or individuals for exploration on their own time. This may be the kind of suggestion which leads children and their families to explore an area of interest related to a topic of discussion in the classroom. A new interest may develop into a new topic of study for the class.

Prepared by ABLE Model Program, Northern Illinois University

HOW TO PREPARE FOR A FIELD TRIP?

The following suggestions of things to do to get ready are for your consideration. Each group will need to work out its own procedures depending upon the needs and interest of the group. However, there are some areas of definite responsibility.

The teacher and career awareness director should be responsible for:

1. guiding the choice of field trip and selecting the time at which the children will profit most by the experiences offered by the trip.

2. investigating the situation, if possible taking the trip in advance, to become familiar with the place to be visited, and the things to be seen on the way to and from the place to be visited.

3. obtaining permission for the trip from
   (a) the principal before discussing it with the group.
   (b) the person in charge of the place to be visited.
   (c) the parents of the children.

Much of the field trip experience can be cooperatively planned together. A teacher and class can:

1. list the things they expect to see and the questions they would like to have answered. Children may decide who will be responsible for getting answers to their questions.

2. gather information before the trip using books and audio-visual materials.

3. discuss every detail of the trip
   (a) time -- date, hour of departure, time to be spent on the trip.
   (b) transportation -- how the group will travel and the safety rules to be observed.
   (c) group needs -- social responsibilities of each individual as a member of the group, the organization of the group enroute and while on the trip, the possible need for members of the School Patrol.
   (d) personal needs -- type of clothing needed, need for lunch, special equipment or tools.

HOW DO YOU USE YOUR EXPERIENCE WHEN YOU RETURN TO THE CLASSROOM?

The learning opportunities opened to the group as a result of a field trip are limited only by the group's capacity to learn, the sensitivity of the teacher, and the time available. The teacher and the group and the group should evaluate the trip to:

1. see if questions were answered.

2. decide if the plans they made were satisfactory.

3. note progress of class thinking and discuss energy to be applied to further work.

The group will probably want to do some of the following in order to build effective learning experiences:

1. Gather more information to answer new questions that arose as a result of the new experience.

   (a) review some of the materials used and search for new materials.
   (b) look up related articles in books at school, at home, and at the public library.

2. Use the experience to correlate the classroom activities with various curriculum areas -- to make learning visible.

   (a) write thank you letters, letters for additional information, stories, poems, reportw, booklets.
   (b) organize reports for the class, for other groups in the school, for parents.
   (c) create songs and dramatic plays.
   (d) make charts, diagrams, murals, dioramas, materials for the opaque projector, illustrations for booklets.

Most of all, the teacher will want to make use of the children's increased interests. The quality of living in the classroom can be improved if enthusiasm for life-centered activities is real.

Prepared by ABLE Model Program, Northern Illinois University

LETTER TO RESOURCE PARENT

Beginning of Year

Dear Parents:

The students in our school this year are participating in a program which aims to better acquaint them with the "working world" of their community.

The basic intent of this project is to make accessible the on-going life activities of workers functioning in our community. We hope to expand our students' view and understanding of the world of work. We also hope to stimulate new interests which will lead to relevant and significant activities in the classroom.

We plan to visit some of the industries and businesses of our community to see the on-going work activities and to talk with some workers. We will attempt to invite workers to vist our classrooms to discuss their occupations and the interrelatedness of our community. We intend to involve our students in interviews and research. We expect much learning content (subject matter) to emerge from our ideas. History, geography, technology and language are just a few of the areas we can cover naturally and realistically.

We recognize, of course, that our beginning point must be as close to our own locality as possible. As a part of our regular instructional program, we would like parents to come to our class to tell the students about their occupations. Our children will benefit by contact with an adult who is contributing to himself and his society.

We realize you are not in the business of giving presentations and, therefore, we intend to have a very relaxed question and answer session. We urge you to consider our need to find out more about your work.

Please fill out and return this form if you might be available. You will be contacted to arrange a definite time and date which will be convenient for both you and the class. The general objectives of the program and suggestions for the things we would like to know about will be available. We are interested in all occupations.

Please return to the teacher.

Name_____ Phone_____

Address_____

Occupation_____

Company or Firm_____

It would be most convenient for me to be at your school on (days or times)_____

_____
Signature

LETTER TO SCHEDULED RESOURCE SPEAKER

Thank you very much for your willingness to participate in our program. Without your cooperation this phase of our program could not exist.

The objective of these sessions is not to get students to make career choices, but rather to help elementary students realize that everyone works, that all useful work is honorable. We hope to acquaint them with the wide variety of occupations that exist (there are many things to be besides cowboys, firemen, nurses and teachers) and make their present schooling more relevant to their future.

Your company or business may have some materials they would furnish for you to bring along, perhaps some pamphlets. You might check with your public relations office. Please bring your tools or whatever you work with. Certainly, if you wear a uniform or special clothing of any kind (welding hood?), bring or wear it if you can. Here are the kinds of things we would like to hear about:

--What is your title or description?
--Briefly describe what you do.
--What aptitudes or skills are important for your job?
--Do you have to deal with the public? If so, would you care to comment on this?
--If you are separated from people most of the time, working with things, how do you feel about that? Do you prefer not having to deal with the public or fellow workers?
--What do you consider the best points of your job? The worst?
--Is your job personally rewarding and fulfilling? Do you enjoy going to work? Do you recommend it as one of the alternatives students should consider?
--You may want to touch upon the financial aspect. Do you consider the pay to be adequate, very good, unsatisfactory?
--What is the outlook? Will this type of employment exist when these students enter the world of work?
--What changes in equipment, automation, personnel, training requirements have you experienced in the time you have been in this field?
--What training is required? (High school? Trade school? College? Apprenticeship? Graduate degrees?)
--Is the field difficult to enter? (Union membership, professional school entrance quotas, etc.)
--How does this type of career relate to what these students do now in school?
--General information on working conditions, bosses, employees, etc.

We would like for you to meet with _____ class at _____ on _____.

Generally these presentations are from one half to one hour in length. If you wish to change to another date or time, or just have questions, call the Career Awareness Office at 342-4543, Ext. 219. We are mostly contacting parents of our students and those people who have signed up with Boise School Volunteers.

THE INDEPENDENT SCHOOL DISTRICT OF BOISE CITY

CAREER AWARENESS OFFICE - 1207 FORT STREET BOISE, IDAHO 83702

Dear Sir:

Along with the teaching of the basic skills in our elementary schools, we feel that students should be given an opportunity to look at the real world of work.

We know that students are not aware of the adult working world. Whenever the work of the school becomes exclusively abstract, the school is in danger of becoming isolated from the real world. Therefore, field trips will fill the void of the functional relation between knowledge and ideas that are taught in school and the real everyday life of people earning a living and providing a service.

We feel that your place of business would provide our students learning experiences which our schools cannot provide. Within the classroom the students are investigating occupations in your business area. These activities are in all subject areas to help students see the relationship between school subjects and occupations.

Some of the things the students will be looking for in your business are:

1. titles of occupations at your plant
2. duties of workers
3. training or preparation needed
4. physical and social characteristics needed
5. what schoolwork was most helpful in your job
6. salaries (optional)

Also a mention of social attitudes and habits which are essential - getting along with others, accepting responsibility, punctuality, initiative - will impress upon children that these must also be developed at an early age to be successful in a job later. It would be helpful before the tour starts for the guide to talk with the children in a more quiet area and tell the group what to be looking for, safety hazards, and set up a few ground rules while visiting.

We wish to thank you for this opportunity to show students "first hand" what the "world of work" is all about.

Respectfully,

George Washburn
Career Awareness Director

GUIDANCE

The career awareness project has as its major goals the enlightening of students to the world of work and development of their self images through understanding themselves and others. It is felt most people who are not successful in their work or have difficulty maintaining a job are failing through an inability to get along with others. Most often this is the result of a poor self-image. The guidance component of this project is designed to help students begin to understand themselves and others and, therefore, lay a groundwork for better future relations.

The elementary counseling program is developmental in emphasis rather than crisis oriented. This means that the counselors' focus at the elementary level is on all children, not merely the exceptional child.

The developmental approach is based on the theory that a developmental task arises at or about a certain period in the life of an individual, with success leading to happiness and later success, and failure leading to unhappiness and later difficulties. A developmental program strives to provide within the school and the home a positive environment so that children have optimal chances for success. Work with teachers and parents as well as children needs to be a vital part of the counselors' role.

The concern of the program is the growth of the whole child; intellectually, socially, and emotionally.

Guidance that is developmental focuses on the encouragement process. Self confidence and the ability to deal effectively with one's world is built through positive, rather than negative reinforcement.

Career awareness at the elementary level is an important aspect of the guidance program. A broad career-orientation can contribute to the child's sense of worth and importance and consequently aids the development of a positive self-concept.

The elementary counselor's work with teachers consists of

(a) consultation regarding children about whom the teacher is concerned

(b) informational presentations to faculties dealing with

1. parent-school relations
2. classroom management techniques
3. child development
4. encouragement skills

(c) organizing discussion groups where teachers can encourage and teach each other new and effective techniques for dealing with specific classroom problems or situations.

The elementary counselor's work with parents consists of

(a) encouraging parent discussion groups
(b) suggesting ways parents can become involved in the schools
(c) consulting with parents regarding their child
(d) serving as resource to parents in areas of
    1. school and community services
    2. responsibility development
    3. child development
    4. school progress
    5. changes in the home
    6. child management
(e) providing parents with books and pamphlets dealing with children's growth and development and behavior

The counselor's work with children falls into two categories. The first is guidance activities within the classroom consisting of

(a) helping teachers to lead meetings and discussions relating to general group problems
(b) encouraging in classrooms the use of films, unfinished stories dealing with feelings and problem solving
(c) serving as a resource person in classes relating to mental health
(d) role-playing activities
(e) puppet activities
(f) career awareness

The second category is counseling. This is one-to-one counseling, limited crisis counseling if the need arises and group counseling

The Career Awareness Guidance Units found in this guide are suggestions which might be used at an opportune time throughout the year. It is intended that the class will view one of the designated filmstrips followed by an open class meeting which will include as members the students, teacher and/or guidance counselor. In the class meeting the subject for discussion should be the topic of the filmstrip and whatever it may lead to. These units are not designed to replace the current guidance activities, but to help direct some of them.

CAREER AWARENESS GUIDANCE COMPONENT

GRADE V

The Guidance activities in Grade five are centered around a number of filmstrips which are in a sequence from Grade one. By being exposed to the filmstrips and other guidance activities in grades one through six, the students will have been introduced to multiple experiences to develop self-concepts.

The filmstrips in this grade are not in sequence within this grade, but are within the entire elementary program. As a result, they might be used in any order and at any time. They are varied enough so that the class session will be different from previous ones although in the same format. All of these activities might be conducted by the teacher and/or the guidance counselor.

The guidance filmstrips are employed as part of certain career units in the total curriculum. This is done to insure their availability in all buildings and classrooms during the year.

If you feel a need for any one of these for your class at a time other than the scheduled one, contact the Career Awareness Technician.

FILMSTRIPS TO BE USED IN GRADE FIVE

Learning to Live With Others, SVE

(Filmstrip and Cassette)

1. "Learning to Be Your Best Self"
2. "Learning About Listening"
3. "Learning to Be Responsible"
4. "Learning What Giving Is All About"

Developing Good Work and Study Habits, ERS

(Filmstrip, Captioned)

5. "Oral Reports: How to Talk Out Loud"

Open-Ended Stories

(Filmstrip and Record)

6. "The New Building"

Developing Basic Values, SVE

(Filmstrip and Cassette)

7. "Respect for Property"
8. "Consideration of Others"

GUIDANCE

GRADE 5

ACTIVITY 1

Materials: Filmstrip and Cassette
"Learning to Be Your Best Self"
--Learning to Live With Others, SVE

Topic:- Uniqueness of the individual

Objective: To help students understand each person has certain capabilities and talents which can be developed.

Activity: Before showing the filmstrip you might engage the children in informal group conversation. "Have you ever wished you were someone else? Who did you want to be? Why did you want to become someone other than yourself?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a boy who tried to be someone else. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. In the filmstrip story, why do you think John really wanted to be a baseball player?

2. Can you think of a time recently when you wanted to do something just because a friend of yours was doing it? What was the result? How did it make you feel?

3. Why do you think John got so angry at his friend Randy when he didn't make Little League? Why did John say, "He thinks he's better than I am?"

GUIDANCE

ACTIVITY 1 (Continued)

4. John Fremont said that it's not easy to be yourself. What do you think he meant?

5. In the filmstrip, John's mother tells hem, "Each one of us has been given different talents and abilities. Every person has something special to offer." How can a person find out what talents and abilities he has?

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 2

Materials: Filmstrip and Cassette:
"Learning About Listening"
--Learning to Live With Others, SVE

Topic: Listening and Talking

Objective: To help students see the need to listen attentatively.

To help students understand there is a time for talking and a time for listening.

Activity: Before showing the filmstrip, you might engage the children in informal group conversation. "Would you rather talk to someone, or listen to him? Why?" "What would happen if everyone talked all the time and no one ever listened?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a boy who was really good at talking but not very good at listening. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. Why do you think Freddy Marshall talked so much?

2. Would you like to have a person for a friend who talks all the time and never listens? Why? Why not?

3. Do you feel that a person trying to be his best self would talk all the time and never listen? Why? Why not?

Activity 2 (Continued)

4. Freddy's mother and father pointed out some of the good things about listening. What were they? Can you think of others?

5. What can a person do to improve his ability to listen?

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 3

Materials: Filmstrip and Cassette:
"Learning to Be Responsible"
--Learning to Live With Others, SVE

Topic: Responsibility

Objectives: To help students see the importance of responsibility in everyday living and growing.

Activities: Before showing the filmstrip, you might engage the children in informal group conversation. "Is the word 'responsibility' a familiar word to you? What do you think of when someone talks about being responsible? What does it mean to you?

Without judging or evaluating the children's remarks, say, "We're going to see a film about a girl who learned some things about responsibility. Let's see what happened."

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. What do you think Annette meant in the filmstrip when she said, "Responsibility...sounds like just another one of those big words adults use when they're upset"?

2. Who do you think should have paid for the damaged library book? Why?

3. What does "being responsible" mean to you?

ACTIVITY 3 (Continued)

4. Can you tell about a time that happened to you when you felt you were a responsible person? A time when you felt you were not a responsible person?!

5 . In the filmstrip, Annette said that you feel happier when you act like a responsible person. Do you agree? Why? Why not?

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 4

Materials: Filmstrip and Cassette:
"Learning What Giving Is All About"
--Learning to Live With Others, SVE

Topic: Generosity

Objective: To help the students see the importance of giving in everyday living and growing.

Activity: Before showing the filmstrip, you might engage the children in informal group conversation. "Suppose you would wake up some morning and discover that you could no longer give anything to someone else - you could only receive things from other people. How do you think it would make you feel?"

Without judging or evaluating the children's remarks, say, "We're going to see a film about a girl who learned some things about giving. Let's see what happened.

After showing the filmstrip, engage the class in informal conversation or discussion about the filmstrip. Or select 4 or 5 boys and girls to be a panel and discuss the filmstrip before the entire class. Some suggested questions follow. Use these or questions of your own. Try to relate the questions to the boys' and girls' experiences and age level.

Some questions to discuss:

1. Why do you think Barbara really got angry with Marianne? Was it about Marianne's giving? What was it?

2. Would you like to have Barbara for a friend? Would you like to have Marianne for a friend? Why? Why not?

3. What do you think Barbara meant when she said, "If you really know how to give, then you're always giving"?

ACTIVITY 4 (Continued)

4. Barbara's father said, "Giving of yourself is a very special gift." How do you feel about this?

5. What do you think about people who give things because they think they <u>have</u> to?

6. You have probably often heard the saying, "It is more blessed to give than to receive." What do you think this means?

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 5

Materials: Filmstrip, Captioned:
"Oral Reports: How to Talk Out Loud"
--Developing Good Work and Study Habits, ERS

Topic: Oral Presentation

Objective: To help students organize and prepare for oral reports.

Synopsis: This filmstrip demonstrates that giving oral reports can be a stimulating and rewarding experience. Students are shown that by researching and organizing information carefully, they can present their ideas intelligently to the class. Outlines, index cards and a pre-class rehearsal contribute to a confident student presentation.

Activities:

1. Discuss the methods by which a speaker can create audience interest in his oral presentation.

2. Have students tell brief stories to the class. Discuss how effectively each student used volume of voice, pitch, enthusiasm and enunciation to attract and sustain the interest of his classmates.

3. Have each member of the class prepare and deliver an oral report.

4. Designate one or two students to keep track of the questions asked by members of the class. At the end of the day, discuss the merits of each question.

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 6

Materials: Filmstrip and Record:
"The New Building"
--Open Ended Stories, ERS

Topic: Listening to Advice

Objective: To help students understand that much of the advice they receive is for their own good and safety.

Synopsis: One Saturday Charlie is out looking for something to do when he discovers an unlocked gate to a large construction site. He is happily playing when a workman spots him and warns of the dangers of the area.

After the workman locks up and leaves, Charlie manages to squeeze back in through the gate. This time his fun is cut short when he slips off a ledge and bangs his knee.

Realizing he was lucky to have hurt himself sleightly, he limps out through the gate. There he finds two friends, eager to play in the construction site. Charlie is unable to convince them of the dangers, and as the filmstrip ends, he is faced with the decision of what to do about his friends.

Activity: Before viewing, explain the "it can't happen to me" idea. Have the children discuss their personal experiences and feelings related to that idea.

After viewing, lead the discussion with such questions as: WHAT DO YOU THINK CHARLIE DID? What might happen if his friends went into the construction site and Charlie did nothing? Do you think Charlie should have told a grownup about the boys? Why? Whom could he have told? How do you think Charlie would feel if he did not tell and his friends got hurt?

GUIDANCE

ACTIVITY 6 (Continued)

Was it all right for Charlie to go in the first time, when he found the gate open? Why do you think Charlie went back in a second time after he had been told not to? Why didn't he believe the workman about the dangers of a construction site? Why didn't his friends believe him?

Discuss other rules which should be obeyed without testing, such as rules about traffic or playing with fire.

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 7

Materials: Filmstrip and Cassette:
"Respect for Property"
--Developing Basic Values, SVE

Topic: Responsibility for Use of Property

Objectives: 1. To help students understand and develop moral and ethical values.

2. To help students understand the meanings of the word property, and help them become aware of their responsibility for its use and treatment.

Synopsis: In this filmstrip, the author has emphasized the kinds of property that exist, how each person has the right to own property without the fear of theft or damage, and how everyone has a responsibility to prevent misuse or mistreatment of property. Through the actions of a group of boys, girls, and their classroom teacher, we discover many ways to practice respect for the different kinds of property that exist. Full-color art illustrations help the student and teacher visualize each kind of property and the many ways that respect for it can be cultivated.

Activity: Show the filmstrip to the students after a short discussion of rights of others, especially property rights.

Follow up with comments of the students.

This session might be conducted by the teacher and/or the guidance counselor.

GUIDANCE

GRADE 5

ACTIVITY 8

Materials: Filmstrip and Cassette:
"Consideration of Others"
--Developing Basic Values, SVE

Topic: Consideration

Objectives: 1. To help students understand and develop moral and ethical values.

2. To offer some suggestions on ways of showing consideration for others:
(a) by not disturbing others
(b) by lending a helping hand
(c) by helping others feel comfortable and happy
(d) by being fair in thoughts and treatment of others

Synopsis: This filmstrip deals with the development of rules for showing consideration for others. Through cooperation of a school's student council, their counselor, and every classroom, suggestions are made and discussed, and four basic rules for showing consideration for others are drawn up. Full-color art helps the students and teacher to visualize the problems of consideration, suggestions for ways of showing consideration, and the four rules drawn up by the student council and their counselor.

Activity: Begin with a discussion of inconsiderate things students have seen so far today without naming students, etc. Show the filmstrip and discuss it afterwards.

This session might be conducted by the teacher and/or the guidance counselor.

CAREER UNITS

CONCEPTS: Each person should gain a good understanding about himself.

OBJECTIVE: To gain more of an understanding about self.

CRITERION TEST: Complete the questionnaire in the activity.

ACTIVITY 1: Suggested Subject Area: Language Arts

Complete the following questionnaire:

About my school work:

What subjects have I liked best in school?

In what subjects did I get the best grades?

Did I get mainly D's, C's, B's, or A's?

Are my grades different this year than last?
Yes_____ No_____ Why?_____

Do I complete assignments on time:
Always_____ Usually_____ Seldom_____

Do I study only for those subjects I like?
Yes_____ Sometimes_____ No_____

Do I ask extra help in those subjects that are hard for me?
Yes_____ No_____

Have I ever volunteered to do extra assignments for something that interested me?
Yes_____ Sometimes_____ No_____

Have I wasted time in school as a usual practice?
Yes_____ No_____

(Continued)

(Act.1-Cont)
About my personal life:

Do I plan my time? (Or do I have to be reminded what to do?)
Yes_____ No_____ Sometimes_____
How do I spend most of my leisure time?

How much time do I waste?

How much time do I help out at home per day?

How much time do I watch T.V. per day?

Am I easy to get along with at home?

Am I popular in a large crowd?

Do I prefer to have just a few close friends?

Has anyone ever told me that he or she didn't like me?

Was it fair?

Do I hate to spend time alone?

Am I the one in the crowd who thinks of things to do , or do I tend to go along with other people's ideas?

About my career:

What are the kinds of work I've ever thought about doing in my adult life?
Is there any one thing that these have in common?
What?

Check those things that I think are important in a career:

_____Making money
_____Doing interesting work
_____Working to help other people
_____Being my own boss
_____Being sure of my future
_____Knowing I've done a good job
_____Using all of my talents
_____Having a good time

TAKE ONE MORE LOOK TO SEE THAT YOU HAVE BEEN COMPLETELY HONEST. DID YOU PUT DOWN WHAT YOU REALLY THOUGHT OR OTHERS SEEM TO THIN? RE-CHECK!

5.1 INTRODUCTION TO CAREER AWARENESS GRADE 5

CONCEPTS: Most people will eventually need to know how to fill out a job application form.

OBJECTIVE: To enable a learner to examine and fill out a basic job application as accurately as possible.

CRITERION TEST: Students will complete the job application form.

ACTIVITY 2: Suggested Subject Area: Social Science

1. Have students fill out application.
2. Conduct interviews in classroom as realistically as possible.

PLEASE PRINT

_____ Phone Number _____
Last Name First Middle

_____ Presently employed _____
Address City State Zip

Social Security No. _____ Height _____ Weight _____

What type of job are you applying for? _____

Do you own a car? _____ Do you have a driver's license? _____

Would you move if the new job called for this? _____

Where would you prefer to move? _____

Do you like traveling? _____

Have you ever been arrested? _____ If yes, please explain: _____

_____

(Continued)

(Act.2-Continued)

Check schooling completed:

K through 10_____
High School _____
High School and some college_____
Trade or business college_____
College with 4 year degree_____
More than 4 years of college_____

Typing_____
Shorthand_____
Keypunch_____
Computer_____
Switchboard_____
Bookkeeping_____
Filing_____
Sales_____
Plumber_____
Waitress_____

Cashier_____
Driving_____
Life Guard_____
First Aid_____
Mechanic_____
Receptionist_____
Carpenter_____
Electrician_____
Janitor_____
Machine Operator___

List your previous jobs and what you did in them:

1._____

2._____

3._____

4._____

What are your other qualifications: _____

_____

List two references: (give name and complete address)

1._____

2._____

5.1 INTRODUCTION TO CAREER AWARENESS — GRADE 5

CONCEPTS: Personal traits are important aspects of getting a job.

OBJECTIVE: To dramatize the importance of personal traits in acquiring a job; to make the learner aware of his good and undesirable traits; to give the learner experience in selling himself.

CRITERION TEST: Students will role-play the positions of the employer and prospective employee.

ACTIVITY 3: JOB APPLICATION DRAMATIZATION Suggested Subject Area: Language Arts

Have one learner play the part of an employer. Have another learner play the part of a job applicant. Allow the two learners to conduct a job interview with stress on traits such as punctuality, reliability, appearance, etc. Follow up with a critique session.

5.1 INTRODUCTION TO CAREER AWARENESS GRADE 5

CONCEPTS : Within each field of work there are many specific jobs.

OBJECTIVE: To make the child aware of variety of jobs available in various field.

CRITERION TEST: Students will be able to list on paper at least three jobs in five fields of work.

ACTIVITY 4: Suggested Subject Area: Social Studies

HOW MANY JOBS DO I KNOW?

Have children name five occupations in each of four of the following fields:

1. Mechanical and repair occupations
2. Clerical
3. Sales
4. Food service
5. Construction
6. Agriculture
7. Arts
8. Health occupations
9. Banking
10. Wood products

GRADE 5

5.1 INTRODUCTION TO CAREER AWARENESS

CONCEPTS : Each person should be able to work in a position which fits their best interest.

OBJECTIVE: To make the child aware of various occupations associated with different interests.

CRITERION TEST: Students will complete the activity.

ACTIVITY 5: AN INTEREST LIST Suggested Subject Area: Language Arts, Social Studies

1. Outdoor activities.
2. Working with machines and other mechanical devices.
3. Meeting and dealing with people and persuading them to yourway of thinking.
4. Creating things with your hands.
5. Reading and writing
6. Musical activities.
7. Helping other people.
8. Discovering new facts and solving scientific problems.
9. Working with numbers.
10. Doing things around an office that require a high degree of proficiency and accuracy.

5.1 INTRODUCTION TO CAREER AWARENESS

GRADE 5

CONCEPTS: Some lines of work rely on repairing items.

OBJECTIVE: To familiarize the children with occupations that are involved with making repairs of some kind.

CRITERION TEST: Each student will unite an original riddle similar to those shown in the activity.

ACTIVITY 6: WHO FIXES WHAT? Suggested Subject Area: Social Studies

Discuss with the children the fact that sometimes the things we use don't work as well as we would like. Explain that you will read some things that might need to be repaired. Have the children tell who would have to be called to help the situation. Include, in the discussion, as many different children as possible. Present the following situations.

1. The refrigerator doesn't keep food cold.
   (refrigerator man: store)
2. The furnace isn't working.
   (furnace man; gas company)
3. The telephone makes strange noices.
   (telephone company)
4. You've lost all your keys.
   (key maker, locksmith)
5. The car broke down.
   (garage, mechanic)
6. A big leak develops in the faucet.
   (plumber)
7. You don't have enough electrical outlets.
   (electrician)
8. You want a new wall put in a room.
   (carpenter)
9. The television picture jumps and wiggles.

CONCEPTS: Prices are generally fixed by container size and weight as well as the contained product.

OBJECTIVE: The learner will become aware of capacity differences in various commercial containers and compute prices per unit.

CRITERION TEST: Students will perform the activity.

MATERIALS: Tin cans, boxes, baskets, jars, etc., of various sizes and shapes.

ACTIVITY 7: MEASUREMENT APPLICATION Suggested Subject Area: Math

Learner will compute prices per unit in a variety of containers which are priced by the teacher to find the best balue. The class might also visit a grocery store and compare prices of products and containers.

5.1 INTRODUCTION TO CAREER AWARENESS GRADE 5

CONCEPTS: A personnel manager will affect many workers in various occupations.

OBJECTIVE: The learner will become aware of the work of the personnel manager, and how people are tested and interviewed for placement in a career.

CRITERION TEST: Students will be able to list on paper or explain in individual conferences 5 duties of a personnel manager.

ACTIVITY 8: PERSONNEL MANAGEMENT Suggested Subject Area: Language Arts

A career in personnel work involves getting to know people's capabilities, interests, skills, dislikes, etc., and helps the employer match workers to jobs they will be comfortable in.

CONCEPTS: Jobs fall within certain fields or categories which can lead to classification of all occupations.

OBJECTIVE: To familiarize learners with clusters, to aid learners build proficiency in classifying job titles into clusters.

CRITERION TEST: See the activity.

MATERIALS: Classification section of newspaper.

ACTIVITY 9: HELP WANTED Suggested Subject Area: Language Arts

Make a chart concaining the job clusters. Assign a number to each cluster. Have learner go through the help wanted section of the want ads. With a pencil or pen he would write the number of the job cluster on each ad.

CONCEPTS: Bartering was once a very common practice throughout the country.

OBJECTIVE: To develop the concept that in the early days of our country and in many underdeveloped countries today goods are traded for other goods or services without the use of money; to understand why merchants were often called traders; to discuss the fact that even today some people bring a few dozen extra eggs to the store and trade for groceries they do not produce.

CRITERION TEST: Class performs either of the activities listed.

MATERIALS: Classroom desks.

ACTIVITY 10: BARTERING Suggested Subject Area: Social Studies

1. Have a classroom trade fair. Allow children to bring items they no longer want or need to class where they will display them on their desk. They may make or accept offers to trade their goods to others for something they want. No money may be used.

2. Through role playing have children illustrate the disadvantages of bartering system through money and banking procedures, working for wages. Discussing differences between early barter economy and money economy.

CONCEPTS

Architects have helped determine constructional design throughout the history of man.
Architecture is an integral part of the construction process.
Architecture is a desirable and productive profession.
Architecture is an artistically creative profession.

PERFORMANCE OBJECTIVES AND CRITERION TEST

1. Students will be able to demonstrate their knowledge of the architectural field by drawing a simple house plan including dimensions of rooms.

Description: Students draw simple house plans for their model house.

Teacher Directions: Refer to activity #6.

RESOURCE PEOPLE

Architect

FIELD TRIPS

Field trip to architectural firm

FILMS

"Frank Lloyd Wright"
--B.S.C. Film Library

FILMSTRIPS

*Building an Apartment House"
--SVE

*Building a Community"
--SVE

*"Designer: People Who Create Art"
--G.A.

BOOKS

*Funny Folks in Limerick Land --Garrard

*Come to Work With Us in House Construction
--Sextant

*Ed Emberley's Drawing Book: Make a World
--Little, Brown, and Co.

*How a House Happens --Adkins

*Popeye and Construction Careers (30 copies)

SUPPLIES

Old magazines
Poster paper
Squares
Compass
Rulers
Drawing supplies
*Drawing instruments (5 sets)
*T-Squares (4)

*Stanley Six Toy Patterns Booklet

*Stanley Early American Design Book

*Architectural Plans

SRA Occupations Cards #2 and #36
--CA Center

*SRA Work Brief

*CA Center Furnishes

5.2 ARCHITECT

GRADE 5

ACTIVITY 1 Suggested Subject Area: Language Arts

Explain to the students that we will be going through the trades dealing with construction, especially as it deals with homes.

Indicate we will study: architect, carpenter, bricklayer, sheetmetal worker, plumber, electrician, roofer, and cabinet maker.

Assign eight students the task of researching these occupations in the SRA Work Brief. They will be required to report on the job, outlook, pay, education and training needed, hours, etc. as we get to those units.

Show the filmstrips "Building an Apartment House" and "Building a Community".

Afterwards, have the students volunteer the jobs they saw in the filmstrips; write them on the chalkboard to use as vocabulary study for the units.

Place the comic books throughout the roon for students to read during their free time.

MATERIALS 1

SRA Work Briefs

Filmstrips:
"Building an Apartment House"
"Building a Community"
--SVE

Comics (30):
Popeye and Construction Careers

ACTIVITY 2 Suggested Subject Area: Language Arts, Art

Read aloud to the students the book Come to Work With Us in House Construction.

Show the pictures and cartoons from the book.

Show the filmstrip "Designer" and discuss with the class.

MATERIALS 2

Book:

Come to Work With Us in House Construction
--Sextant

Filmstrip:

"Designer: People Who Create Art
--G. A.

GRADE 5

ACTIVITY 3 Suggested Subject Area: Language Arts, Art

Have students write limericks for each of the construction workers mentioned. The limerick should indicate something about the work they do on the job, i.e.:

There once was a roofer named Del,
Who shingled each house mighty well,
Till he ran out of room
And fell down with a boom.
There once was a roofer named Del.

Students might choose the jobs they wish to write about. It might be good to have a limerick on the board so students understand the timing. Samples can be read from the limerick book.

Place finished products on the bulletin board for all to read.

Students might also draw a cartoon to go with their limericks. Suggestions might come from the book read and from Ed Emberley's Drawing Book: Draw a World.

MATERIALS 3

Books:

Ed Emberley's Drawing Book: Make a World
--Little, Brown, and Co.

Funny Folks in Limerick Land
--Garrard

ACTIVITY 4 Suggested Subject Area: Social Science

Show the film "Frank Lloyd Wright" to the students. Explain the many forms of architectural design today and in the past, especially indicate the periods of architecture.

These can be found in encyclopedias and yearbooks along with many pictures.

Have many old magazines in the classroom. Students go through these and cut out pictures of buildings showing different designs. They should make a bulletin board display with their pictures, using as many different types as possible.

MATERIALS 4

Film:

"Frank Lloyd Wright"
--B.S.C. Film Library

Magazines:

(Many old ones to cut up.)

ACTIVITY 5 Suggested Subject Area: Social Science

Read to the class How a House Happens and show drawings. Leave it out for individual use.

MATERIALS 5

Book:

How a House Happens
--Adkins

ACTIVITY 6 Suggested Subject Area: Social Science

Have a resource person who is an architect or an architectural student give a demonstration to the class. He should have the tools required for the job and numerous examples. He should also give a demonstration of the work done.

or

Go on a field trip to an architectural firm or to the architecture department at Boise State College.

Use the appropriate forms for the activity you choose.

Another field trip suggestion is to have an architect take the class to a construction site and indicate those areas architects perform.

MATERIALS 6

Resource Person:

Architect or Architectural Student

or

Field Trip

GRADE 5

ACTIVITY 7 Suggested Subject Area: Language Arts, Art

MATERIALS 7

SRA Work Briefs

Follow up activity #4 by going over what was learned about the profession.

Have the student report on his findings in the SRA Work Brief and any related information he might have found from other sources.

Have students draw rough plans for a house from what they have learned.

Give them a set time to complete this and then ask them to look at their designs as you go over the following:

Do you have a kitchen, living room, bedrooms, bath, utility, closets, playroom, storage, garage, doorways, halls, etc.?

ACTIVITY 8 Suggested Subject Area: Math

MATERIALS 8

Occupations #2 and #36
SRA Math Cards

The "Occupations" cards suggest some excellent activities which you might wish to explore in connection with math and careers. Do all or part of the activities described.

Example

Architect, Art. 7 Example

5.3 CARPENTER

GRADE 5

CONCEPTS

The carpentry trade is historically one of our oldest professions.
Carpenters are needed and are in much demand throughout the country and the world.
Carpentry is a skill which requires training on the job or trade school.
Carpentry is a desirable and productive occupation.

PERFORMANCE OBJECTIVES AND CRITERION TEST

1. Students will be able to list from memory at least ten tools a carpenter uses.

   Description: Quiz on carpenter tools.

   Teacher Directions: Refer to activity #1A. Students correct their own papers. This is to be used as a learning activity as well as a testing measure. Do not assign grades.

2. Students will be able to determine how much material is needed within one board foot when given simple plans of a carpentry project such as are included in this unit.

   Description: Carpentry project.

   Teacher Directions: Refer to activity #3.

J.J CARPENTER

GRADE 5

RESOURCE PEOPLE

Carpenter

FILMS

FILMSTRIPS

*"Building the Foundation" —SVE

*"My Dad Is a Carpenter" —ERS

BOOKS

*The Littlest Carpenter (25)

*How to Choose and Use Tools (25)

*Tool Guide (5)

*Use for Patterns (3)

*Early American Design (2)

SUPPLIES

Lumber - scrap
Lumber - check at beginning of unit find out how much will be required
Varnish
Paint
Brushes
7 boxes, at least 3" x 5"
Glue
Tape
Cardboard cutters
Straight pins
Tacks

*Skin Mark Driers
*Crossword Puzzles (5)

*Carpentry aprons (30)
*Carpentry tools
3 tool kits with 11 pieces
1 tool kit with 28 pieces
*Wood burners (5 sets)
*Industry crayons (3)

*CA Center Furnishes

5.3 CARPENTER

GRADE 5

ACTIVITY 1

Suggested Subject Area: Language Arts, Social Studies

Show the filmstrip "My Dad Is a Carpenter".

Discuss the filmstrip, and ask students what kinds of jobs a carpenter might do. Have the tools on display which a carpenter might use. Explain each and its use.

Pass out the booklets "The Little Carpenter" to the class.

Go through the booklet with them. As you come to each tool, display one to the class.

After finishing, give a quiz over the tools. Hold a tool up and have the students write down the name of it.

After finishing, go over it again so students can see how accurate they were.

MATERIALS 1

Filmstrip:
"My Dad Is a Carpenter" --ERS

Booklet:
"The Little Carpenter" --Stanley Tools
(in packet)

ACTIVITY 2

Suggested Subject Area: Social Studies

Presentation by a resource person carpenter. Have him demonstrate the use of his tools, explain jobs he does, training he needed, pay scale, hours, etc.

Question and answer session.

MATERIALS 2

Resource person: Carpenter

Materials: Lumber
Tools

Carpenter, Act. 1 & 2

5.3 CARPENTER

GRADE 5

ACTIVITY 3

Suggested Subject Area: Math

Have each student build one of three projects: book rack, bird feeder, or tool kit.

Have students choose the one they wish to do. Give each student the plans pertaining to his choice, and ask him to go to work.

They will need to work in groups of four (4) to utilize the tools.

They will measure out the material from the plans, cut it out, and put it together. It is suggested there be a number of parents or high school students in the class to help the groups.

Two or three days on this project.

MATERIALS 3

Lumber (decide how much at the time)
2" hinges
Nails
Screws
1½" poles
Carpentry tools
Plans of projects

ACTIVITY 4

Suggested Subject Area: Art

Students decorate their project from activity #3 as they wish: woodburning, painting, varnishing.

MATERIALS 4

Woodburners
Varnish
Paint
Brushes

ACTIVITY 5

Suggested Subject Area: Math

Show the filmstrip, and discuss the work of the carpenter with the class.

MATERIALS 5

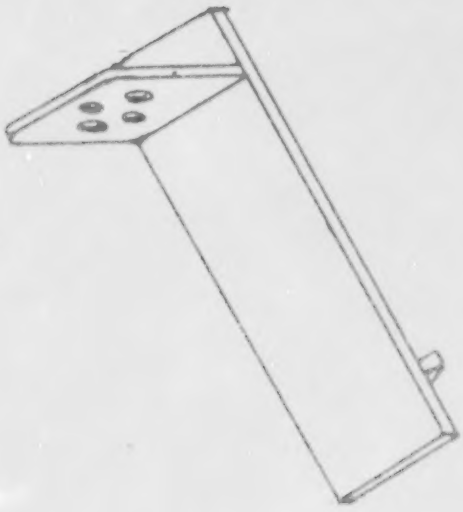
Filmstrip:
"Building the Foundation" --SVE

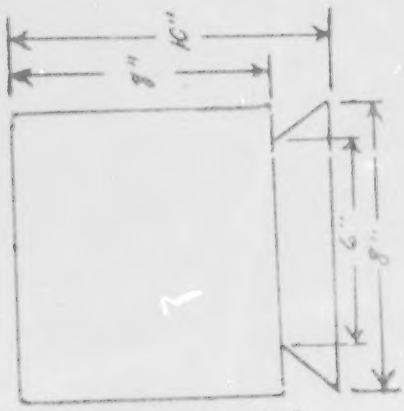
Carpenter, Act. 3, 4, & 5

Book Rack

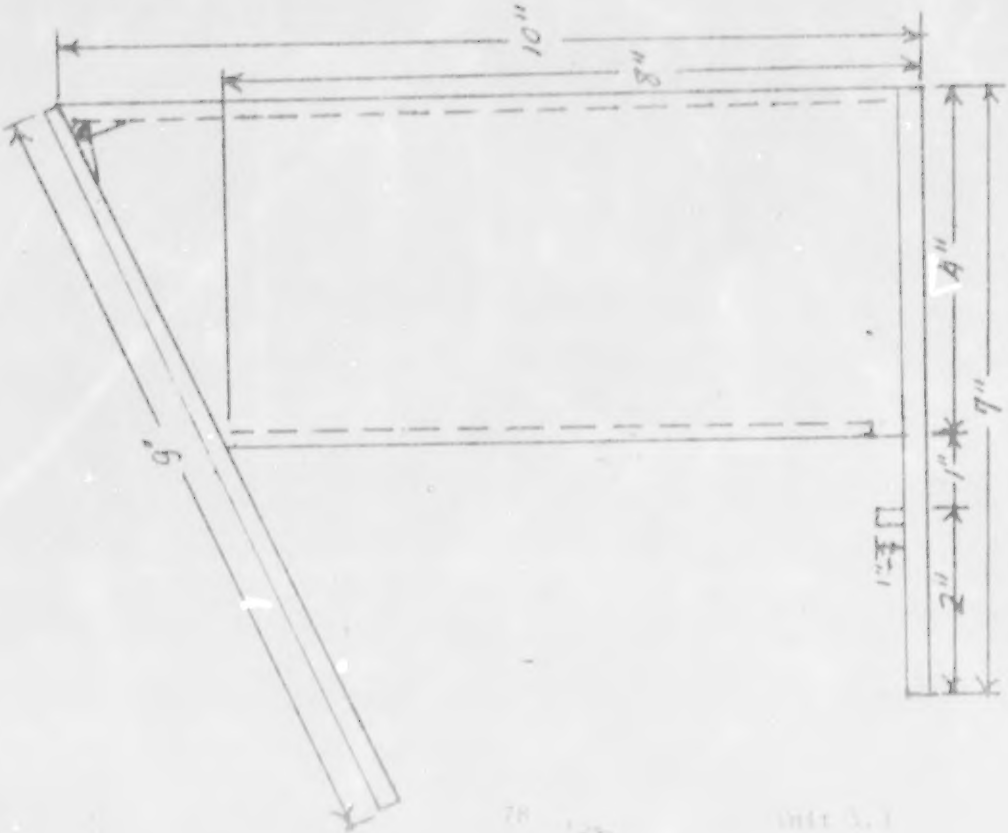
1 x 8 x 34

4 2 inch screws





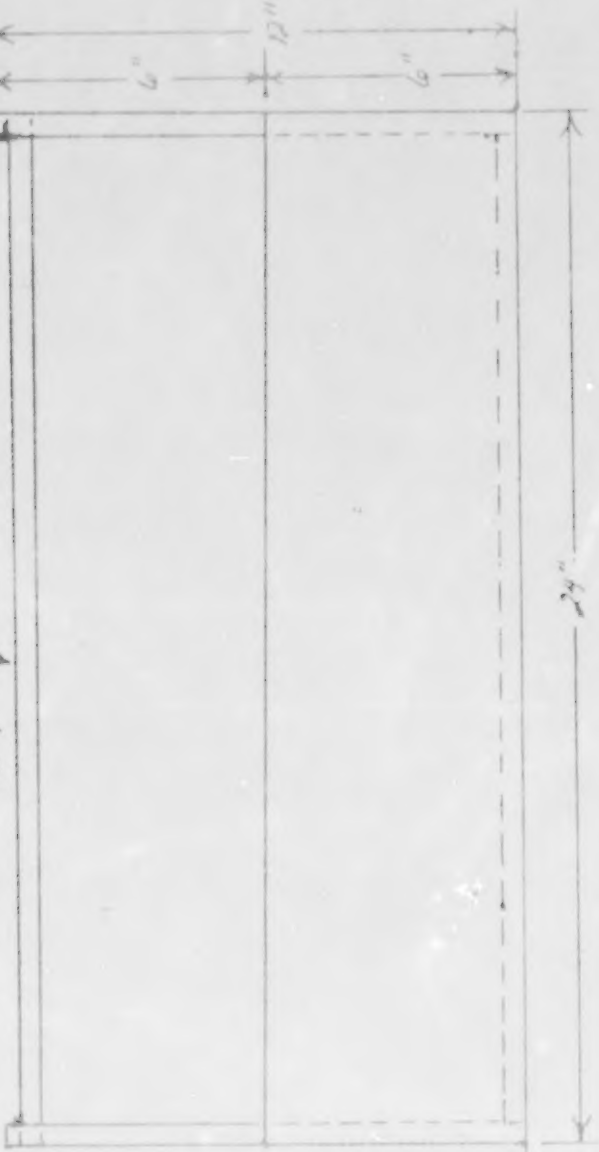
Bird Feeder

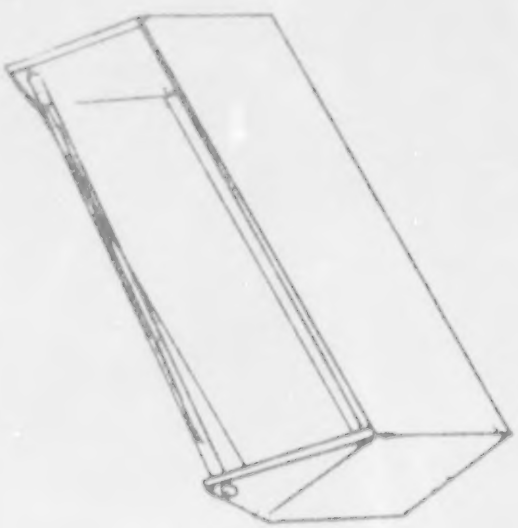


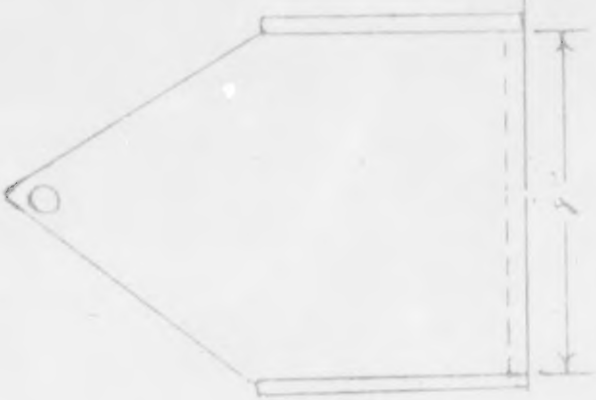
½" x 8" x 5½"
2 - 2" hinges

Tool box

1"x6"x 24"
1"x8"x24"
1/2 plywood x24"
inside







CONCEPTS

Electricians are a necessary part of the construction process.
Electricians must know much more about electricity than simply how to install wiring.
Skills and knowledge about the trade are gained both on-the-job and in trade school settings.
The Electrician's trade is a desirable and productive occupation.

PERFORMANCE OBJECTIVE AND CRITERION TEST

1. Students will be able to draw a simple series circuit and parallel circuit at the conclusion of this unit.

   Description: Draw-a-picture illustration.

   Teacher Directions: Refer to activity #2.

5.4 ELECTRICIAN

GRADE 5

RESOURCE PEOPLE

FILMS

"Electricity: Wiring in Your Home" --MP1299
or
"Electricity and How It Is Made" --MP5254

FILMSTRIPS

*"Our Community Utilities" --Coronet

*"A Trip to the Electrical Plant" --ERS

*"Whys of Elementary Science" - Set of 4
--Filmstrip House

FIELD TRIPS

BOOKS

SUPPLIES

Dry cells or regular batteries
Bulbs and sockets - 18
Switches - 9
Covered wire - 45 feet
Very light wire - on rolls
Tacks
Tape
Glue
Wirecutters
Flashlight bulbs (number uncerta

*SRA Work Briefs
*SRA Occupations Cards, #42

*CA Center Furnishes

GRADE 5

ACTIVITY 1 Suggested Subject Area: Social Science

Show the filmstrips: - "Our Community Utilities"
"A Trip to the Electrical Plant"

Choose the one or more you wish to show and discuss.

Ask the student assigned to this unit to report on the findings in the SRA Work Briefs.

MATERIALS 1

Filmstrips:
"Our Community Utilities" --Coronet
"A Trip to the Electrical Plant" --ER

SRA Work Briefs

ACTIVITY 2 Suggested Subject Area: Science

Experiments: Two ways to connect light bulbs in a circuit.

Procedure: Pass out two light bulbs, a dry cell, and a switch to each three children and then say, "Experiment by connecting the two light bulbs, dry cell, and switch until you discover a circuit where, if you unscrew one bulb, the other bulb will also go out. This switch should turn both lights on and off at the same time. When you get the circuit properly connected, draw a picture of what you have." This is a series circuit.

Notice the brightness of the bulbs. Now use only one bulb in the curcuit. Notice the difference of the brightness. Explain this. (The cell now has to heat up only one tungsten filament.)

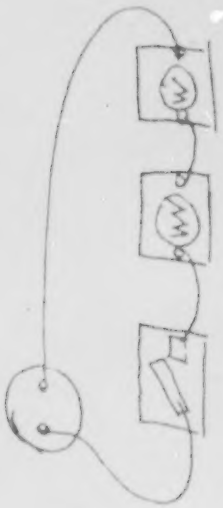
"Now disassemble your circuit. Experiment with connecting the two light bulbs, dry cell, and switch until you discover a circuit where, if you unscrew one bulb, the other bulb will stay lighted. The switch should turn both lights on and off at the same time.

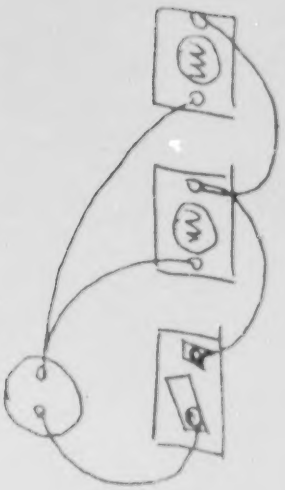
When you get the circuit properly connected, draw a picture of what you have. This is a parallel circuit.

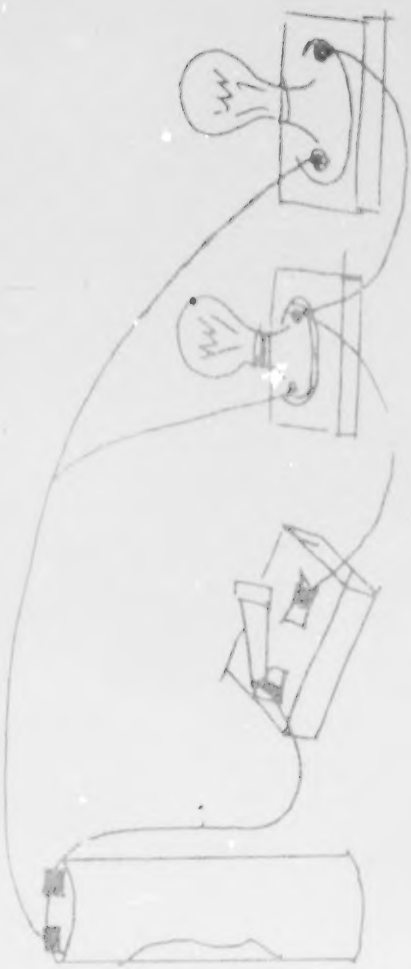
Unscrew one bulb. Does the brightness of the other bulb change? All bulbs have a full supply of electric current; therefore, they don't dim or brighten. Relate this to house wiring.

MATERIALS 2

9 dry cells
18 bulb and sockets
9 switches
wire







GRADE 5 MATERIALS 3	MATERIALS 4
Films: "Electricity: Wiring in Your House" --MP1299 or "Electricity and How It Is Made" --MP5334	

GRADE 5

ACTIVITY 5 & 6 Suggested Subject Area: Science

MATERIALS 5 & 6

Show these filmstrips in conjunction with other activities in this unit or as a separate activity.

Filmstrip Set:
"Whys of Elementary Science"
--Filmstrip House

"Whys of Elementary Science" - Set of 4

1. "How Electricity Helps Us"
2. "Magnets"
3. "Static Electricity"
4. "Current Electricity"

ACTIVITY 7 Suggested Subject Area: Math

MATERIALS 7

The "Occupations" card suggests some excellent activities which you might wish to explore in connection with math and careers. Do all or part of the activities suggested.

SRA Occupations Card #42

5.5 PLUMBER GRADE 5

CONCEPTS

The Plumbing trade outlook is very favorable as construction increases throughout the nation.

Skills developed in this trade are learned on-the-job or in trade school settings.

Plumbing is a desirable and productive occupation.

PERFORMANCE OBJECTIVES AND CRITERION TEST

1. Students will be able to diagram the sequence for getting water into the home.

Description: Draw-a-diagram illustration.

Teacher Directions: Refer to activity #2.

5.5 PLUMBER

GRADE 5

RESOURCE PEOPLE

Plumber

FILMS

FILMSTRIPS

*"Our Community Helpers - Water"
--Coronet

FIELD TRIPS

BOOKS

SUPPLIES

Plumbing tools

*SRA Work Briefs

*SRA Occupations Cards, #10

LA Center Furnishes

GRADE 5

MATERIALS 3

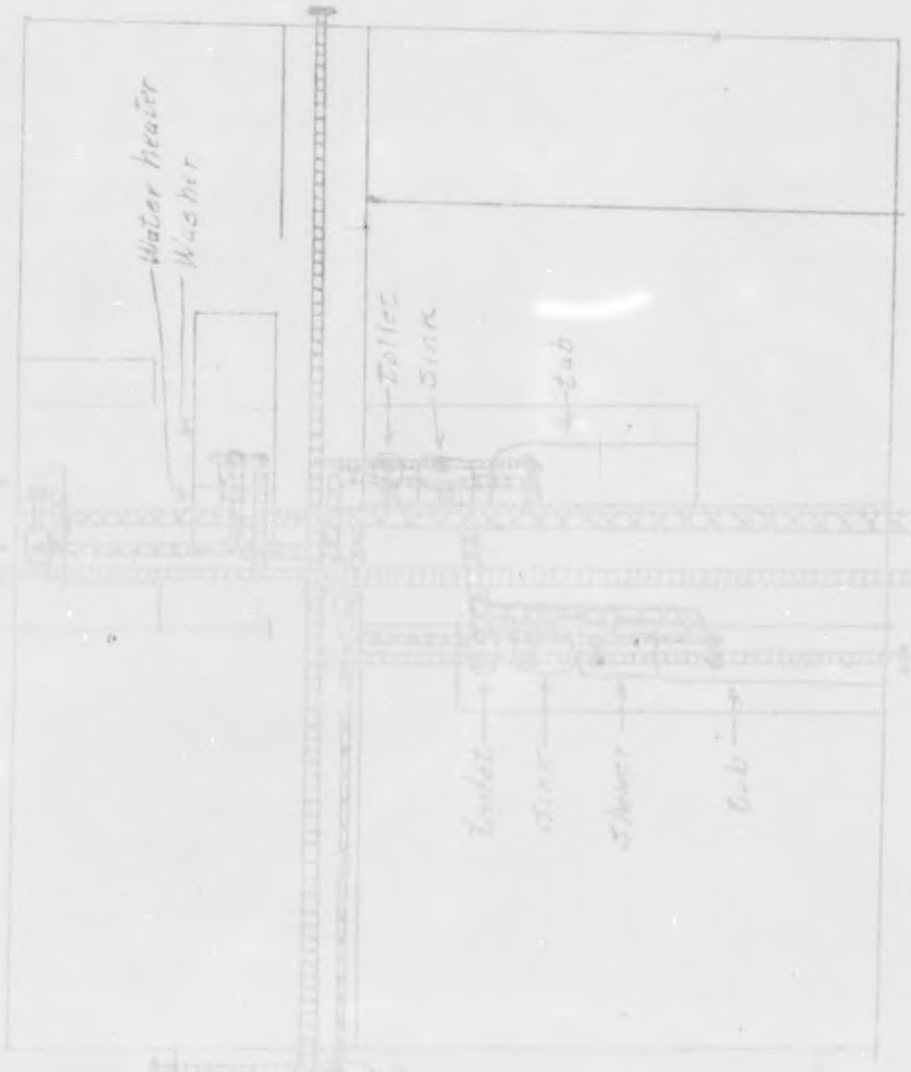
Resource person:
Plumber

MATERIALS 4

Architectural plans for house

MATERIALS 5

Occupations Card #10
SRA Math Cards


Water heater
Washer
Toilet
Sink
Tub

CONCEPTS

GRADE 5

...(small) size of bricks;
...per hour as a building
...per hour for bricklayers and hod carriers;
...the walls of the building.

...construction students should be able to
...tools, screws, latches, glues,

...construction cabinets in their model
...student make a list of at
...tools which are used in the
...(i.e. saws, glue, nails,
...hammers, rules, paints, stains, etc.).

GRADE 5

SUPPLIES

*SRA Work Briefs

*SRA Occupations Cards, #5, #14, #16

*CA Center Furnishes

Construction Trades

GRADE 3

MATERIALS 1

SRA Work Briefs

Materials for the display

MATERIALS 2

Display of materials from activity

Resource person: bricklayer

MATERIALS 3

GRADE 5

MATERIALS 4

Billing materials

ACTIVITY 4

Groups of students each make out a bill for laying brick on a house. They must include:

Cost of bricks at 7¢ each
Hours of work at $7.00 per hour - bricklayer
Hours of work at $4.00 per hour - hod carrier
Cost of cement - one bag per 100 bricks or fewer at $1.75 per bag
Cost of lime - one bag per 100 bricks or fewer at $2.50 per bag
Allow 5 hours of time for cleanup at regular work scale

The groups will then orally present the bill to the class explaining all items.

(Bill: Bricks, 96 hours of bricklaying, 85 hours of hod carrying)

MATERIALS 5

Filmstrip:
"We Learn About Fuels"
--Taylor AV

heat ducts
cold air returns

ACTIVITY 8 Suggested Subject Area: Social Science

MATERIALS 8

Introduce this unit by showing pictures of various forms of cabinets available for the home. Point out that, historically, this is a very important trade.

SRA Work Briefs

Picture packet of cabinet maker

Ask the student who is assigned for this unit to report on this job from the SRA Work Briefs.

Cabinet on display

Have on display in the room a well-built section of cabinet. (Could be borrowed from a cabinet shop.) Go over the cabinet and emphasize:

How it all fits together perfectly
Hinges used
Stops and latches used
Nails and glue
Different types of doors
Finish

Note the many different pieces of wood used in even a small section of cabinet.

ACTIVITY 9 Suggested Subject Area: Social Science

MATERIALS 9

Field trip to a cabinet shop. Have students prepared beforehand so they will know what to look for.

Field trip

or

Ask to see the cabinet maker at work in the process.

If a field trip cannot be arranged, ask a cabinet maker to come to the classroom to demonstrate his skills, show tools, indicate pay, hours, training.

Resource person cabinet maker

ACTIVITY 10 Suggested Subject Area: Math

MATERIALS 10

The "Occupations" cards suggest some excellent activities which you might wish to explore in connection with math and careers. Do all or part of the activities described.

SRA Occupations Cards, #5, #6, #8

CONCEPTS

The cost of constructing a house is generally determined by the square footage of the house.

In constructing homes all trades areas work cooperatively together.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. The students will understand that several job areas in construction work cooperatively together in building.

(a) Description: Pantomime.

Teacher Directions: Refer to activity #3.

(b) Description: Individual conference.

Teacher Directions: In individual conference the student will be able to relate to the teacher the idea of cooperation among the trades in construction.

GRADE 5

5.7 CONSTRUCTION CONCLUSION

SUPPLIES

Display of 25 tools

Drawn plans for 3 houses with measurements (teacher made)

FILMS

FILMSTRIPS

BOOKS

RESOURCE PEOPLE

FIELD TRIPS

Home construction site

5.7 CONSTRUCTION CONCLUSION

GRADE 5

ACTIVITY 1 Suggested Subject Area: Math

The students will determine the cost of a house as a group by measuring its square footage. We will figure the home cost $18.00 per square foot. After a stated time, the students in each group will then move on to another model and figure that cost.

Continue until they have determined the cost of each house. Then give them the appropriate approximate figures. Go over all questions about the costs. Put the method you used to get the figure on the chalkboard for each problem.

Before they begin this activity, a review of finding square footage will be necessary.

MATERIALS 1

Drawn plans for 5 houses with measurements
(Teacher made)

ACTIVITY 2 Suggested Subject Area: Social Science

List on the chalkboard the seven trades we have covered in construction: architect, carpenter, sheet metal worker, plumber, electrician, bricklayer, and cabinet maker.

On tables have 25 tools used by these trades on display and numbered. Have students number 1-25 on a sheet of paper. Then they are to look over the tools and determine which trade best fits each tool. Many tools can be used by many of the trades, but ask the students to determine the one or two areas it most represents.

MATERIALS 2

Tool display of 25 tools

GRADE 5

MATERIALS 3

ACTIVITY 3 Suggested Subject Area: Language Arts

Have students pantomime a job we have studied from the construction trades, either one we have studied specifically or others we have observed while studying these.

A committee of five students must determine the job and tools being used. Give every student a chance to put on a pantomime. Rotate the committee by adding the one just finished pantomiming and dropping one off.

ACTIVITY 4 Suggested Subject Area: Social Science

MATERIALS 4

Field trip

Field trip to Boise Cascade Home Building factory in Meridian or to a construction site where the class will be able to see as many construction jobs being done as possible.

ACTIVITY 5 Suggested Subject Area: Language Arts

MATERIALS 5

Students write a paper on the construction occupation we have studied that they would most enjoy doing.

They should indicate why it is their choice and any other information they feel is important.

Or students draw a finished home they would be interested in building and living in.

5.8 DAIRY FARMER

GRADE 5

CONCEPTS

The dairy industry is a vital part of our national economy.
The dairy industry generally affects every person.
The dairy farmer has many types of jobs he must perform.
The dairy farmer must keep abreast of new developments in the industry.
Dairy farming is a desirable and productive profession.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit, students will be able to demonstrate their knowledge of the dairy industry by preparing and presenting a short oral report on a selected topic.

   Description: Oral Reports.

   Teacher Directions: Refer to activity #2.

RESOURCE PEOPLE

FILMS

SUPPLIES

Display of dairy products cartons

*Poster - More Milk, Please
--National Dairy Counc

FILMSTRIPS

*"How We Get Milk" --SVE

*"Life on a Dairy Farm"
--National Dairy Council

FIELD TRIPS

Dairy farm

BOOKS

Encyclopedias
Many on dairy and cattle

*Popeye the Sailor and Agri Business Careers

*CA Center Furnishes

ACTIVITY 1 Suggested Subject Area: Health

Show and discuss the filmstrips "How We Get Milk" and "Life on a Dairy Farm".

Have a display of dairy products containers with as many varieties as possible.

Display charts and dairy farm panorama kit from the National Dairy Council.

Put out comic books for students' free time use.

MATERIALS 1

Filmstrips:
"How We Get Milk" --SVE
"Life on a Dairy Farm"
--National Dairy Council

Packet

ACTIVITY 2 Suggested Subject Area: Language Arts

The students will give reports on the following areas:

1. How dairy cattle differ from beef cattle
2. Holstein - Friesian
3. Jersey
4. Guernsey
5. Brown Swiss
6. Ayrshire
7. Dual-purpose cattle (Milking Shorthorn, Red Pole)
8. Feeding of dairy cattle
9. Diseases
10. Leading dairy states
11. Parts of a dairy cow
12. Digestion
13. Products of dairy industry
14. History of dairy cattle

The reports need not be long; however, emphasize pictures drawn by the students of types of cattle, diagrams, charts, displays of products. Each report should have some type of visual display. It is suggested two students work on one report area, preparing one day and presenting another. The students might use sets of encyclopedias for their information gathering.

MATERIALS 2

Encyclopedias

ACTIVITY 3 — Suggested Subject Area: Math

Give each student a copy of the chart "Dairy Cattle Production" and ask them to figure the following problems after you work an example on the chalkboard:

1. Figure out how much feed a cow will consume in a year. Figure for each type of dairy cow.
2. Figure out how many gallons of milk you will receive in a year from each type of cow.
3. Figure how many pounds of milk is required to produce one pound of butterfat for each type of cow.

Include any other problems you feel might be pertinent to this activity.

MATERIALS 3

Chart:
"Dairy Cattle Production"
(one per student)

ACTIVITY 4 — Suggested Subject Area: Science

Place the posters on the bulletin board and go over them in order. There are good suggestions with the guide.

MATERIALS 4

Posters:
More Milk, Please
guide

ACTIVITY 5 — Suggested Subject Area: Social Science

Visit a dairy farm to learn about the cattle, facilities, and feeding. Emphasize the work the dairy farmer must do, records he must keep, and crops he must grow.

MATERIALS 5

Field trip

DAIRY CATTLE PRODUCTION

	Ayrshire	Brown Swiss	Guernsey	Holstein-Friesian	Jersey
Weight per cow (in pounds)	1200	1400	1100	1500	1000
Average annual yield milk in pounds	7700	9000	7000	9600	6400
Average gallons of milk per day	27	30	23	32	20
Average pounds of butterfat per year	36	40	39	41	40
Feed consumed per day in pounds					
silage	35	42	33	45	30
hay	12	14	11	15	10
grain	5	6	4½	6½	4

5.9 RANCHER GRADE 5

CONCEPTS

The profession of a rancher is dependent upon the following criteria:

Change	Inspection	Quality
Climate	Interdependence	Resource
Division of Labor	Need	Technology
Growth	Nutrition	Utilization

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. At the conclusion of this unit, the student will be able to describe how modern technology has enabled the rancher to perform many aspects of his work more easily.

   Description: Writing exercise.

   Teacher Directions: Refer to activity #4.

RESOURCE PEOPLE

Idaho Meat Packers
1602 Chicago St.
(A. R. Burrato or
L. Sorini, 459-4695)

McCluskey Commissary
724 Paynter
(Andrew McCluskey,
459-1581)

Treasure Valley Live-
Stock Auction
(R. L. Yost, 459-7475)

FIELD TRIPS

FILMS

"Cattle Country" --MP9004-EJ IMC

"Sheep and Shepherds" --MP1215

FILMSTRIPS

*"Cattle Raising" (Record and Manual) --Field

*"Douglas, Wyoming Ranch Community" (with tape)
--Singer SVE

"Cattleman" --734 IMC

*"The Story of Wool" --SVE

BOOKS

*The Brand of a Boy (booklet)
--Idaho Beef Council

Living in the United States (text)
--MacMillan

SUPPLIES

*Poster - "Cattle Raising"
--Field

*CA Center Furnishes

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ACTIVITY 1 Suggested Subject Area: Social Studies, Language Arts

Display the poster where all class members are likely to see it. Pupils' questions about it may lead to discussion. Teacher should emphasize the three themes of the display: People, Places, and Products. Lead the children to see the parallels among the pictures (three of people, two of places, and one product).

Show the filmstrips and play the record with the Field one.

Ask the children to write a paper comparing the dune buggy and the horse and their usefulness to the cowboy.

MATERIALS 1

Poster:
"Cattle Raising" --Field

Filmstrips:
"Cattle Raising" (with record) --Field
"The Story of Wool" --SVE

ACTIVITY 2 Suggested Subject Area: Social Studies, Art

Show the filmstrip and play the cassette for the class. After the film, discuss the following:

1. Why are the semiarid regions of the West well-suited for ranching?
2. What are some activities on a modern ranch?
3. How do businesses in a community serve and depend upon the surrounding ranches?
4. In what other areas of the United States is ranching practiced?

Following the discussion, have the class divide into committees for work on a bulletin board, scrapbook, and display pertaining to ranching.

MATERIALS 2

Filmstrip:
"Douglas, Wyoming: Ranch Community" (with cassette) --Singer SVE

Text:
Living in the United States (page 218) --MacMillan

ACTIVITY 3 Suggested Subject Area: Music, Art

Students learn to sing one or more of the following:

From Making Music: "Texas Cowboy", page 67

From This Is Music: "Whoopee Ti-Yi-Yo", page 133
"The Lone Star Trail", page 136
"My Hero's a Cowboy", page 137
"Cowboy Night Song", page 164

Finish work begun on activity #2.

MATERIALS 3

Texts:
Making Music --American Book Co.
This Is Music --Allyn and Bacon

ACTIVITY 4 Suggested Subject Area: Language Arts

The children will research some area of particular interest in ranching such as: "How Modern Technology Has Made the Rancher's Work Easier and More Profitable"or"Classifying Cowboy Equipment".

This will be shared by the class through any one of the following:

Poem
Limerick
Song
Paragraph or theme
Skit
Demonstration

MATERIALS 4

Library books
Encyclopedias
(Any other resources readily available)

ACTIVITY 5 Suggested Subject Area: Social Science

Select one of the following and arrange either for a field trip or for a speaker to visit the class.

Idaho Meat Packers
McCluskey Commissary
Treasure Valley Livestock Auction

MATERIALS 5

Field trip
or
Guest speaker

GRADE 5

MATERIALS 6

MATERIALS 7

Films from IMC:
"Cattle Country" --MP9004-EJ
"Sheep and Shepherds" --MP1215

Rancher, Act. 5 & 7

CONCEPTS

The purpose of this unit is to develop social concepts of:

Change	Interdependence	Ripeness
Division of Labor	Need	System
Growth	Quality	Technology
Harvest	Resource	Utilization

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit, the students will be able to describe in writing how machinery has made cotton production more efficient.

   Description: Writing exercise.

   Teacher Directions: Refer to activity #1.

2. The students will be able to list fifteen products of the cotton plant.

   Description: Display of cotton products.

   Teacher Directions: Refer to activity #4. Have the students make a list of the cotton products on display.

RESOURCE PEOPLE

Van Slyke Museum
(Farm Machinery Display,
City Park)

Zamzow's, Inc.
(Feed and Seed)
888-4477, Meridian

FILMS

"Changing Wheat Belt" --MP5356
"Down on the Farm" --MP5064
"Hog Sense" --MP9008
"Orange Grower" --MP5267
"Plants Make Food" --MP1406

FILMSTRIPS

*"Cotton Producing" --Field
*"How We Get Vegetables" --SVE
*"How We Get Fruit" --SVE
*"David's Cotton Farm" --National Cotton Council
*"Cream Farming" --Field

FIELD TRIPS

BOOKS

Living in the United States (Text) --MacMillan
*Cotton (Booklet) --National Cotton Council
This Is Music (Text) --Allyn and Bacon
Singing Together (Text)
Making Music (Text)
*Where We Get Our Food (Booklet)
--National Dairy Council
*Jimmy Looks at Farming (Comic Book)

SUPPLIES

*Kit - The Story of Cotton
--National Cotton Council

*Crossword Puzzles - "Farm Buildings"
"Farm Animals"
"Farm Machinery"
"Crops"

*CA Center Furnish

ACTIVITY 1 — Suggested Subject Area: Social Studies, Language Arts

Display the poster and kit where all the class members can see them.

Allow the students to browse through the pamphlets at their seats. Allow them to inspect the seven samples in the kit.

After a few minutes, discuss the poster, using the children's questions as a basis, involving the entire class. The teacher should place emphasis on the three themes of the poster: People, Places, and Products.

There are parallels among the pictures: people involved in cotton producing, places where cotton is grown, and the finished product.

Show the filmstrip and play the record for the entire class.

Have the children write a paragraph describing how machinery has made cotton production more efficient.

Place comic books in the room for the week for students to read as they have time. Room sets: please do not let students take them home.

MATERIALS 1

Poster: "Cotton" --Field

Filmstrip:
"Cotton Producing" (with record)
--Field

Kit:
"The Story of Cotton"
--National Cotton Council

Comic books:
Tommy Looks at Farming

ACTIVITY 2 — Suggested Subject Area: Social Studies

The purpose of this activity is to investigate cotton growing regions.

Allow the children to research individually the cotton growing regions and through class discussion arrive at the concept of a "cotton belt".

Discuss why this area (or these areas) is rich in natural conditions which are condusive to cotton growing.

How might other industries be influenced by the location of cotton areas?

Have the children color or otherwise indicate on their own maps the cotton producing areas.

MATERIALS 2

Dittos of U. S. maps (1 per child)
Relief map
Encyclopedias
Social Studies texts

GRADE 5

ACTIVITY 3 Suggested Subject Area: Music, Language Arts

Students learn to sing one or more of the songs listed under Materials 3.

Use the "Boll Weevil Song" as the basis for a skit. This is to be a child-directed activity.

MATERIALS 3

Music texts:
This Is Music --Allyn and Bacon
"Spin, Spin, My Darling Daughter" (page 41)
"Cotton Needs a Pickin'" (page 99)

Singing Together
"Boll Weevil Song"

Making Music
"Dixie" (page 30-31)

ACTIVITY 4 Suggested Subject Area: Social Studies

Go over the booklets from the National Dairy Council in class. There are many good suggestions in the Teacher's Guide with the materials.

MATERIALS 4

Booklet:
Where We Get Our Food
--National Dairy Council

ACTIVITY 5 Suggested Subject Area Language Arts

Have the class divide into four groups and each group preview one filmstrip. Each group should decide how they will present their filmstrip to the class and plan to lead a class discussion of the strip.

These presentations and discussions may motivate the class as a whole or individual students to do additional projects relating to farming and the production of food.

MATERIALS 5

Filmstrips:
"How We Get Vegetables" --SVE
"How We Get Fruit" --SVE
"David's Cotton Farm"
--National Dairy Council
"Grain Farming" --Field

GRADE 5

ACTIVITY 6 — Suggested Subject Area: Spelling

MATERIALS 6

Use the crossword puzzles found in the box of supplies. Run off copies so each student has one for his use. It is suggested the teacher go over the terms so they are well understood by the class.

Crossword puzzles:
"Crops"
"Farm Animals"
"Farm Machinery"
"Farm Buildings"

ACTIVITY 7 — Suggested Subject Area: Social Studies

MATERIALS 7

Show one or more of these films from IMC.

"Changing Wheat Belt" --MP5356
"Down on the Farm" -MP5064
"Hog Sense" --MP9008
"Orange Grower" --MP5267
"Plants Make Food" --MP1406

CONCEPTS

Meat has an important place in our diet and is one of the four food groups essential to health.
Meat of cattle, hogs, and sheep have several different names: (a) beef and veal, (b) lamb and mutton, (c) pork.
Supermarkets and meat markets sell meat and it is there that the butcher cuts up the meat into retail cuts to sell to the customer.
The meat packer or butcher works under definite regulations and standards.
The butcher must have learned definite skills in the handling of meat and tools.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit the students will be able to list six tools used by a butcher.

   Description: List on paper.

   Teacher Directions: The teacher will have the students list the tools on paper.

2. Upon completion of this unit the students will be able to match the following terms to cattle, sheep, or hogs:

sausage	lamb chops	veal
pork chops	mutton chops	T-bone steak
ham	ground lamb	ground beef
bacon		

   Description: Paper matching.

   Teacher Directions: The students will match the terms on their papers.

5.11 BUTCHER, MEAT PACKER — GRADE 5

RESOURCE PEOPLE

FILMS

FILMSTRIPS

*"How We Get Meat" - The Foods We Eat, SVE
(CA Center)

FIELD TRIPS

Supermarket or
Meat Packing Plant

BOOKS

Yellow Pages of Learning Resources, MIT Press
(School Library)

SUPPLIES

*Packet of Materials - CA Center

Posters:
*Pork Chart
*Lamb Chart
*Beef Chart
--National Livestock and Meat Board
(CA Center)

*CA Center Furnishes

ACTIVITY 1 Subject Area Suggested: Social Science

Show the filmstrip "How We Get Meat" to the students. Discuss the workers seen in the strip.

Place the three posters Pork Chart, Lamb Chart, and Beef Chart on the bulletin board. Discuss the meat cuts with the students briefly.

Go through the article "Butcher" on page 16 of Yellow Pages of Learning Resources. There are many good suggestions and much information that can be used. Refer to pages 85 - 87 of the book, "How to Use This Book". Use as many of the suggestions as you feel will add to the students' understanding.

MATERIALS 1

Filmstrips:
"How We Get Meat", The Foods We Eat
--SVE

Posters:
Pork Chart
Lamb Chart
Beef Chart
--National Livestock and Meat Board

Book:
Yellow Pages of Learning Resources
--MIT Press

ACTIVITY 2 Suggested Subject Area: Scien[illegible].t, Language Arts

Each student will do at least one of the following:

1. Make a puzzle on tagboard of meat cuts which can be put together as a carcass of beef, lamb, or pork.
2. Make a chart similar to the one on page 24 or page 25 of The Brand of a Boy.
3. Make a map similar to the Armour Food Service Map.

A discussion should follow the activities, or the students can report to them.

MATERIALS 2

Charts:
Pork Chart
Lamb Chart
Beef Chart
--National Livestock and Meat Board

Booklet: Brand of a Boy
--Packet

Map: Armour Food Source Map
--Packet

ACTIVITY 3 Suggested Subject Area: Health

MATERIALS 3

A. The children discuss what the butcher must know about sanitation around his place of work. List such things as the following and discuss why they are necessary.

1. wash hands often
2. keep fingernails clean
3. wear clean clothing
4. scour and scald all meat utensils such as trays, dishes, grinders, etc.
5. air dry all utensils
6. clean meat blocks and tables after each use
7. scrub the working area floor often
8. wash and scald the meat grinders after each use
9. clean refrigerator and fixtures often
10. clean and sterilize the garbage cans and keep them covered
11. see that doors and windows are screened
12. watch out for flies, roaches, weevils, rats and mice

These could be put on separate cards for the children to pantomime while others guessed.

B. Discuss how the butcher knows that the meat he is cutting is wholesome and fit to be sold to the customer.

1. Have the children bring an actual meat stamp cut from meat from home or make their own on paper.

C. Rules of safety to observe as a butcher or meat packer. Discuss and guide the class into listing several safety measures such as:

1. keep handle of knife free from grease
2. do not grab for a falling knife
3. do not lay meat on knife (may forget it is there when meat is picked up)

MATERIALS 3

ACTIVITY 3 Continued

4. do not carry a knife when both hands are needed for carrying packages
5. never throw knives together into a box or drawer (may cut self and it dulls blades)
6. do not reach into soapy water for a knife
7. keep the free hand as far away as possible when using cleaver
8. do not crowd the working space
9. let the saw do the work (if the saw is forced it may jump from the bone onto your hand)
10. avoid "horseplay" with meat cutting tools (knives, saws and cleavers are dangerous)
11. keep the floor clean (fat meat trimmings are as dangerous as banana peels)
12. treat bone scratches and knife cuts immediately as a minor scratch can become infected and cause blood poisoning.

ACTIVITY 4 Suggested Subject Area: Social Science

Take a field trip to a supermarket to view a butcher at work or to a packing plant to view the process of cutting up the meat.

If a butcher is available ask him to demonstrate the following:

1. boning knife
2. steak knife
3. steel
4. saw
5. cleaver
6. hook
7. stone
8. block scraper
9. block brush
10. metal mesh glove

Review:

"How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom"
(From appendix of this book)

MATERIALS 4

Field trip

ACTIVITY 5 Suggested Subject Area: Math

Follow up field trip activities:
Compare costs of different cuts of meat and discuss why there is a difference.

Ascertain the average weight of a steer -- then the carcass weight, then the number of pounds of average meat left for consumer after trimming.

1. the pounds for steak
2. the pounds for roasts
3. the pounds for ground beef, short ribs, stews, etc.

The total of 1, 2, 3 should equal the weight after trimming.

Develop math problems such as:

1. If each steak weighs 10 oz., how many steaks can be cut from a piece of meat weighing 56 pounds?
2. If I eat 8 oz. of meat a day, how many pounds would I consume in a week? A month?
3. What is the percentage of meat available for steaks from an average steer?
4. What is the percentage available for roasts?
5. What is the percentage available for hamburger, cube steak, etc?

Research: Get information from home on amount of money spent on meat for one week. Then figure for a month and a year.

Brainstorming session: Students meet in groups of five and think of all the different people who are involved in producing one steer.
(Page 12 - 13 of "The Story of Beef")

MATERIALS 5

Booklet:
The Brand of a Boy - page 24
--Packet

"The Story of Beef"
--Packet

5.12 DIETITIAN

GRADE 5

CONCEPTS

Many diversified industries employ dietitians.
Dietetics is the science that deals with the relationship of food to health.
Nutrition is a closely related field.
Special diets for gaining or losing weight are the direct concern of the dietitian as are specialized diets for prevention and control of illness.
Malnutrition, its prevention and cure, is the direct responsibility of the dietitian.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. At the conclusion of this unit, the student will be able to describe, either orally or in writing, three businesses in Boise that employ dietitians, the four basic food groups, and the definition of malnutrition.

(a) Description: Notebook questions.

Teacher Directions: Refer to "Conclusion" activity.

(b) Description: Oral test.

Teacher Directions: In an individual conference with each student, ask the student to describe three businesses in Boise that employ dietitians, the four basic food groups, and the definition of malnutrition.

RESOURCE PEOPLE

School Dietitians
Hospital Dietitians

FIELD TRIPS

FILMS

FILMSTRIPS

"Eating the Right Kind of Foods" --956 IMC
"Foods for Health" --211 IMC
"Food for Life" --1218 IMC
"Right Foods Keep Health" --2964B IMC
"Meal Planning" --1940 IMC
*"The Real You" --National Livestock & Meat Board

BOOKS

Understanding Your Needs (Text) - 5
--Lyons and Carnahan

Discovering Science (Text) - 5
--Merrill

*Better Homes and Gardens Cookbook

*Mystery at the Food Power Tower (Booklet) - 30
--National Livestock & Meat Board

*Test Your Food Power (Booklet) - 30
--National Livestock & Meat Board

SUPPLIES

Tape recorder
Filmstrip viewers

*SRA Occupations Cards, #27

For experiment in activity #2.
Olive oil
Thin, white paper
Pan
Dried lima beans
Teaspoon
Iodine
Medicine dropper
Peanut butter
Spoon
Feathers or hair
Hot plate
Drinking glass
Miscellaneous foods

*CA Center Furnishes

5.12 DIETITIAN

GRADE 5

ACTIVITY 1 — Suggested Subject Area: Social Science

MATERIALS 1

Show the filmstrip "The Real You" to the class and read the materials for each frame. Discuss at the conclusion.

Filmstrip:
"The Real You"
--National Livestock and Meat Boar

The remainder of this unit is self-directed. The time taken to complete the activities might vary with the emphasis the teacher wishes to place on the unit.

ACTIVITY 2 — Introduction

MATERIALS 2

This packet is self-directing. When you finish one activity, go on to the next. At the end there will be a post test. You may work on this packet individually or in a small group.

Please look ahead and plan which day you will be working on what activity. If you need materials, please be sure to write out a request sheet to your teacher.

Sample request sheet:

Name:
Date handed in:
Date needed:
Material needed:
Number or name of Career Awareness Packet:

ACTIVITY 2.1 — Subject Area: Health

MATERIALS 2.1

Book:
Understanding Your Needs (Text)

While beginning this activity, read Understanding Your Needs, Chapter 2, "Foods for Going and Growing".

Keep a record of the foods you eat for three days. Divide these into the four basic food groups.

Are all of your food groups filled?

Paste or staple your chart into a notebook that you will now begin entitled "Dietitian" (or you may choose another appropriate title).

Go on to activity #2.2.

ACTIVITY 2.2 — Subject Area: Health

MATERIALS 2.2

Book:
Understanding Your Needs (Text)

Poster:
"Dietitian"

While you are working on activity #2.1, start preparing a bulletin board like the one suggested on page 59 of Understanding Your Needs.

Ask the teacher to obtain the poster "Dietitian". Also, have your teacher make arrangements now for interviews during later activity.

Go on to activity #2.3.

ACTIVITY 2.3 Subject Area: Social Studies

View filmstrips in groups of five or six. Rotate from strip to strip as you finish them. Each student must view at least three of the strips.

Do a written or picture evaluation of each filmstrip. Put in notebook.

MATERIALS 2.3

Filmstrips:
"Eating the Right Kind of Foods"
"Foods for Health"
"Food for Life'
"Right Foods Keep Health"
"Meal Planning"

ACTIVITY 2.4 Subject Area: Health, Science

Plan menus for a week for your family. If you desire, do a cost accounting for this menu plan.

Make sure you include proper proportions of the basic foods.

You will need cookbooks. Better Homes and Gardens Cookbook is a good one.

Place these in your notebook.

Go on to activity #2.5.

MATERIALS 2.4

Cookbooks

ACTIVITY 2.5 Subject Area: Art, Language Arts

Display preparation: Make a nutrition display showing a balanced diet. Post near the lunchroom serving line in your school.

Be sure to check with the cooks ahead of time.

MATERIALS 2.5

GRADE 5

ACTIVITY 2.6 Subject Area: Science, Health

Notebook activities:

Read pages 293-304 in Discovering Science, 5.

(A) Do experiment to discover compositions of foods. Enter results in your notebook. Materials you may need for this experiment are listed under Materials 2.6.

(B) Make specialized diets for:
a. sugar free
b. fat free
c. low cholesterol
d. low carbohydrate

(C) Look up malnutrition. Find out causes and prevention. The history is particularly interesting.

(D) Find out why English sailors are called "Limeys".

Use encyclopedias, library books, and any other resource materials that may be available to you. Your health textbook may be helpful.

MATERIALS 2.6

Discovering Science, 5

- olive oil
- thin, white paper
- pan
- dried lima beans
- teaspoon
- iodine
- medicine dropper
- peanut butter
- spoon
- feathers or hair
- hot plate
- drinking glass
- misc. foods

Resource books

ACTIVITY 2.7 Subject Area: Language Arts, Math

Read the booklet "Mystery at the Food Power Tower". Then in your notebook place the answers to the 21 questions in "Test Your Food Power".

Do not write in the pamphlets.

MATERIALS 2.7

Booklets:
"Mystery at the Food Power Tower"
"Test Your Food Power"

ACTIVITY 2.8 Conclusion

MATERIALS 2.8

Resource person: Dietitian

Presentation by a resource person who is a dietitian.

Have questions ready ahead of time that you would like to ask about what a dietitian does and where one goes to learn to be a dietitian.

This will be a class project.

Next, answer these questions in your notebook.

1. Write a definition of a dietitian.
2. Write the basic food groups and place today's school lunch menu in these food groups.
3. Write down three businesses in Boise that would employ a dietitian.
4. Write a definition of malnutrition.

5.12 DIETITIAN

GRADE 5

ACTIVITY 3

Suggested Subject Area: Math

The "Occupations" card suggests some excellent activities which you might wish to explore in connection with math and careers. Do all or part of the activities described.

MATERIALS 3

SRA Occupations Card #27
--SRA Math Cards

5.13 PHYSICIAN - NURSE

GRADE 5

CONCEPTS

The medical profession has many varied occupations within it.
People in the medical profession have gone through many years of specialized training.
Those in the medical profession will help us take care of our bodies.
Doctors, nurses, and others in this profession are in positions of great personal responsibilities.
Jobs in the medical profession are desirable and productive positions.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit the students will be able to name five of the six major systems of the body.

   Description: Students make charts on the six major systems of the body.

   Teacher Directions: Refer to "Option" activity.

   Description: Oral test

   Teachers Directions: In individual conferences with each student, ask the student to name at least five of the six major systems of the body.

2. Upon completion of this unit the students will be able to describe seven occupations within the medical profession.

   Description: Class meeting.

   Teacher Directions: Refer to Activity #1. Have students talk about the various occupations seen in the filmstrip "Health Services" and ask them to comment on their own experiences with health services.

RESOURCE PEOPLE

School Nurse
and
One or more of the following:

Doctor
Male Nurse
Technician
Medex
Inhalation Therapist
Tumor Institute
Personnel

FIELD TRIPS

FILMS

"Health Heroes: The Battle Against Disease"
--MP 1085 IMC

FILMSTRIPS

* "Our Bodies"
Set of four Whys of Elementary Science
--Filmstrip House
(All from CA Center)

"Doctor" - IMC 500

BOOKS

Health Text - Understanding Your Needs
--Lyons and Carnahan

SUPPLIES

* "Diseases and Health" -
Transparancies and Masters by Milliken
(CA Center)

* Nurse Kits
* Doctor Kits } CA Center

Models of: eye, ear, heart, body
Eye chart
stethoscope
stop watch
(School Nurse)

* Filmstrip viewers - CA Center

*Crossword Puzzle: "Doctor"

*CA Center Furnishes

5.13 PHYSICIAN - NURSE

GRADE 5

ACTIVITY 1

Suggested Subject Area: Health

This unit will best fit into the section "Your Body Systems" from the text Understanding Your Needs.

Show the film "Health Heroes: The Battle Against Disease" and discuss it.

Have out for display the doctor and nurse kits so students can see tools used by these occupational areas.

MATERIALS 1

Film:
"Health Heroes: The Battle Against Disease" - MP 1085 IMC

Text:
Understanding Your Needs
--Lyons and Carnahan

Doctor Kit
Nurse Kit CA Center

ACTIVITY 2

Suggested Subject Area: Health

Pass out the room set of comics on health careers for students to read. Have mimeographed copies of the last page "Can You Answer These?" for each student.

This might also be used as free reading time material rather than an activity.

Use the crossword puzzle found in the box of supplies. Run off copies so each student has one for his own use. It is suggested the teacher go over the terms so they are well understood by the class. The puzzle included in this unit is "Doctor".

MATERIALS 2

Room set of booklets:
"Popeye the Sailor and Health Careers"
(CA Center)

Crossword Puzzle: "Doctor"

ACTIVITY 3 Suggested Subject Area: Health

Ask the school nurse to conduct a session of questions and answers concerning her duties and the duties of non-school nurses. Emphasize the various levels of nursing.

She might then show the model of the eye and explain it. Then have students take an eye test with a chart for their own experience. She might also demonstrate various other things she does in her work.

Review: "Communicating With Talent", "Resource Talent" and "Questions for Group Conferences" from appendix of this book.

MATERIALS 3

Resource Person: School Nurse

Model of eye
Eye chart

ACTIVITY 4 Suggested Subject Area: Health

The school nurse or teacher will explain the functions of the ear using the model of the ear and the full body model.

Then, using the heart model, explain the circulatory system in conjunction with the text.

Using a stethoscope, have students listen to each other's hearts. Havae them count the beats per minute on others or themselves after sitting and after running.

MATERIALS 4

Understanding Your Needs
--Lyons and Carnahan

Models: ear, heart, body

Stethoscope
Stop watch

ACTIVITY 5 - 6 (Two days) Suggested Subject Area: Health

Have the transparancies placed around the room and give each student a copy of all the masters. Explain to the students they are to complete the masters in two periods, (2 days) or sooner. They are to view a transparancy, then move to another area and complete the master to which it might pertain.

When they are finished they should turn them in to the teacher. When all have finished, return the masters to the students and go over the results by using the transparancies.

MATERIALS 5 - 6

Transparancies and Masters
"Diseases and Health" - Milliken
(CA Center)

ACTIVITY 7 Suggested Subject Area: Health

Have a resource person talk with the class describing the job and instruments used. This might be a doctor, male nurse, technician, medex, etc.

If more than one of these are available, don't hesitate to use them on different days.

Review: "Communicating With Talent", "Resource Talent" and "Questions for Group Conference" from appendex of this book.

MATERIALS 7

Doctor
Male Nurse
Technician
Medex
Inhalation therapist
Tumor Institute Personnel

ACTIVITY 8 - 9 Suggested Subject Area: Health

Have five filmstrips set up in stations with group viewers. The students will view four of these strips in the time given (probably two health periods).

Determine the time needed for a viewing and at the end of the time they should all move to another station. They are to answer all the questions on the filmstrips of the first four. On the fifth one, if they choose it, they are to write down five major duties of a doctor as indicated in the strip.

After they have finished, go over the strips and the questions.

MATERIALS 8 - 9

Filmstrip Viewers

Filmstrips:
1. "Getting Acquainted With Our Bodies"
2. "How Bones and Muscles Work"
3. "Why We Breathe"
4. "Keeping Healthy"
   --Filmstrip House
   (CA Center)
5. "Doctor" -- IMC 500

ACTIVITY Option Suggested Subject Area: Health

Students make charts on one of the following:
- skeletal system
- muscular system
- circulatory system
- respiratory system
- digestive system
- nervous system

Diagrams of these can be found in the health text as well as in many other sources.

Other options might be from the health text Understanding Your Needs, page 132, "Something to Do".

MATERIALS Option

Understanding Your Needs
--Lyons and Carnahan

5.14 PHARMACIST

GRADE 5

CONCEPTS

Some people work to help us stay healthy.
A pharmacist is a professional expert on drugs.
A pharmacist must have a college education and he must pass an examination to obtain a license.
A pharmacist has many places of work open to him.
The pharmacist must use integrity, precision and dedication in the dispensation of drugs.
Drugs are chemical substances for medical use.
Misuse of drugs can lead to ill health and even death.
Safe storage of drugs in the home is of great importance.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. The students will be able to tell about the pharmacist - who he is, where he works, and how he qualifies - when given the following choices in the media of expression: a written paragraph, an oral report, or a picture illustration.

Description: Language arts exercise.

Teacher Directions: Instruct each student to tell about the pharmacist - who he is, where he works, and how he qualifies - through any one of the following modes of expression: a written paragraph, an oral report, or a picture illustration.

RESOURCE PEOPLE

Mrs. Joan Ross
Health Consultant
(Admin. Bldg.)
Dr. Harold Hatton
School Physician
Mr. Robert Hanson
Psychologist
Mrs. Marjorie Formo
Supervisor of School Nurses
School Nurse
Parents (employed in pharmacy or health services)
Police Department
(Drug & Narcotic Div.)
Pharmacist

FIELD TRIPS

FILMS

"Drugs and the Nervous System" --School Nurse

FILMSTRIPS

"Dangers of Narcotics" --200 IMC

BOOKS

*Healthy Is Happy --Whitman
World Book Encyclopedia
Dictionaries
New Dimensions in Mathematics (Text) - 5 --Harper and Row
Our Language Today (Text) - 5 --American Book Co.
Childcraft Encyclopedia
*Vocational Education and Career Bulletin Board Ideas --Maynard (Williston Public Schools)
*Simulation Games and Activities for Social Studies (Booklet) --Youngers and Aceti

SUPPLIES

*Scales - measure of small weights

Plastic medicinal dosage cups for liquid measure (metric markings)

Overhead projector

*Pamphlet "Your Career Opportuniti in Pharmacy" --Pfizer Lab.

*"The Druggist" --Occupational Crossword Puzzle 2569 - Ideal

*Disease and Health"
--Transparency by Milliken

*CA Center Furnishes

5.14 PHARMACIST

GRADE 5

ACTIVITY 1

Suggested Subject Area: Social Studies, Language Arts

Introduce the unit by showing the poster "Pharmacist" and reading (or telling) the class about the information on the poster. Place the poster on the bulletin board for student reference.

Ask the following questions and let the students discuss each one briefly:

1. What is a pharmacist?
2. Where might he work? (Select one child to make a list on the chalkboard of the places named. List should include drug store, hospital, industrial plants, research laboratories, State and Federal government, armed forces, etc.)
3. How can one become a pharmacist?

Use the pamphlet "Your Career Opportunities in Pharmacy" to find additional information to give to the class.

Ask pupils to bring pictures from magazines, papers, old drugstore displays, etc. illustrating places where a pharmacist might work.

MATERIALS 1

Pamphlet:
"Your Career Opportunities in Pharmacy" --Pfizer Laboratories

ACTIVITY 2

Suggested Subject Area: Social Studies, Art

Use magazine and newspaper clippings to make a bulletin board.

Divide class into small groups to make a bulletin board display depicting the many places where a druggist might work. Each group will be responsible for illustrating one area of the pharmacist's role in society.

Use the list which was placed on the blackboard previously. Add any new ideas which they might express. The list should include most of these as well as others.

1. Drug store
2. Hospital
3. Industrial plants
4. Research laboratories
5. Government (State & Federal)
6. Armed forces

Children will want to use books and pamphlets for ideas. Research activities.
Discuss ways of making bulletin board attractive.
Have class evaluate the bulletin board displays when completed.

MATERIALS 2

Magazines Newspapers
Discarded posters from drug store

Pamphlets and booklets:
"Your Career Opportunities in Pharmac
--Pfizer Laboratories
"Vocational Education and Career Bulletin Board Ideas"
--Williston Public Schools

books:
The World Book Encyclopedia
Vol. 15, page 17
Childcraft
"Pharmacist", Vol. 6, page 222-223
Healthy Is Happy --Whitman

ACTIVITY 3 — Suggested Subject Area: Art

Student may select an art project from the following or create one of his own.

1. Use crayon or paint to make a picture of the drugstore or some illustration of the druggist's work. Display mounted pictures on the bulletin boards.
2. Student may design his own transparency about the pharmacist. Experiment with the processes of overlay, labeling, etc. Use the overhead projector to show the picture to the class when completed.
3. Use candies to create "pill" designs and artistic lettering, mosaics, etc. Display on the bulletin board after completion.

Have students evaluate their work.

MATERIALS 3

Book:
Simulation Games and Activities for Social Studies (page 44)
--Younger and Aceti

ACTIVITY 4 — Suggested Subject Area: Math

Write the Tables of Standard Measurement on the chalkboard. Include Table of Weight, Liquid Measure, and Metric System (if using metric scales).

Give each child a prescription to fill. (Each child may write a prescription for another to fill.)

Kitchen scales may be used to weigh dry ingredients (flour, cocoa, sugar, etc.) as prescribed. Example: Cold Medicine

1 oz. cocoa
1 oz. flour
2 oz. sugar
Dosage: ½ tsp. daily

As children become proficient, they may use metric scales, or apothecary scales.

Measure liquids in empty medicine bottles which have markings, or in plastic dosage cups obtained from hospital (plastic cups used in dispensing medicine to hospital patients).

Students solve problems in measurement which have been assigned from book or written on chalkboard.

Evaluate by going over problems together.

MATERIALS 4

Text:
New Dimensions in Mathematics, 5
(pages 324 and 372)
--Harper and Row

Scales for measuring weight

Ingredients for "prescriptions"

ACTIVITY 5 Suggested Subject Area: Language Arts

Have the children study the form and method of writing a business letter (pages 41-46).

Discuss the parts of the letter and write the parts on the chalkboard to illustrate.

Have the children write business letters asking for more information about a career in pharmacy. They may find their own sources, or use those listed on page 24 in "Your Career Opportunities in Pharmacy".

Example from page 24: Write and ask for a booklet:

See Your Future in Pharmacy
American Pharmaceutical Association
2215 Constitution Avenue, N. W.
Washington, D. C. 20037

MATERIALS 5

Text:
Our Language Today, 5 (pages 41-46)
--American Book Company

Booklet:
"Your Career Opportunities in Pharmacy" --Pfizer Laboratories

ACTIVITY 6 Suggested Subject Area: Language Arts

Give each student a mimeographed copy of the crossword puzzle, "The Druggist".

They are to complete this in a prescribed time or stop when time is called. Go over the results with the class.

Children may do it as a contest, and compete by rows or by pre-arranged grouping. One point may be given for each correct word; total score by rows.

MATERIALS 6

"The Druggist"
Occupational Crossword Puzzle
--Ideal No. 2569

GRADE 5

MATERIALS 7

ACTIVITY 7

Suggested Subject Area: Language Arts

List on the chalkboard the following terms (or any words you choose to use).

Children may use a dictionary or reference book to find the meaning. Write the meaning after each word.

Define:

1. pharmacist
2. prescription
3. drug
4. illegal
5. label
6. stimulant
7. depressant
8. hallucinations
9. poison
10. sedative

Write each word on a separate sheet of paper or piece of tagboard; write the meaning on the back or on another small card. Drill on the vocabulary words by matching the word with its meaning.

Ditto sheets for testing.

Learn to spell the words prescription, doctor, and aspirin.

ACTIVITY Options

Suggested Subject Area: Music, Health
Language Arts

1. Group singing: "A Spoonful of Sugar" --Sherman
   (From Walt Disney's Mary Poppins)

   Or compose a song about the pharmacist.

2. Brainstorming: Items in a drugstore.

   Divide class into groups of 5 or 6 students and select a place for each to work. Each group chooses a "recorder" and a "pilot". The "recorder" writes down the responses for his group; the "pilot" keeps the group working quickly and systematically. At the signal "Go!" each group begins to think of as many items as they can, beginning with the letter "t", which are found in a drugstore. After the signal "Stop!" each group counts the items listed. (Example: toothpaste and tums.) The group having the most points is the winner. One student may record the group scores on the chalkboard. The winning group reads their list to the class; the other groups add to it any new items from their lists.

3. Research on drug abuse. Children read about drug abuse and habit-forming drugs.

   Show transparency "Alcohol and Drugs" from Disease and Health. Explain transparency.

   Show filmstrip "Danger of Narcotics". Follow with discussion.

   As a home project, have students inventory medicine cabinet and campaign for safe drug storage.

4. Have resource person visit room and talk on some phase of the drug problem. Resource person may present movies, filmstrips, or displays, also. Follow up presentation with a short class discussion.

   Children write a news story about the presentation for a school paper or draw picture illustrations. (This could be done the next day.)

   (Mrs. Formo has the film "Drugs and the Nervous System" available.)

MATERIALS Options

Music for "A Spoonful of Sugar"
Mary Poppins Album
Wonderland Music Company (Rm. 112)

Text:
Understanding Your Needs, 5
(pages 197-199) --Lyons and Carnahan

Transparency:
"Alcohol and Drugs"
Disease and Health (page 10)
Milliken

Filmstrip:
"Danger of Narcotics" --200 IMC

Resource person from among following
Dr. Harold Hatton, School Physician
Mrs. Joan Ross, Health Consultant
Mrs. Marjorie Formo, Supervising Nurse, BISD
Mrs, Vivian Storey, Garfield Nurse
Mr. Robert Hanson, School Psychologi
Boise Police Department
Drug and Narcotic Division

5.15 PSYCHIATRIST GRADE 5

CONCEPTS

Mental illness is similar to physical illness in that it can become a problem to some degree in every person.
Mental illness can be treated and cured as can physical illness.
There are many forms of mental illness.
There are many types of workers within the mental health field.
Many years of training are necessary to become a specialist in the field of mental health.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit, the students will be able to demonstrate their knowledge of the field of psychiatry by doing research in a particular area of interest and reporting the findings to the rest of the class.

   Description: Oral report.

   Teacher Directions: Refer to activity #2.

5.15 PSYCHIATRIST

GRADE 5

RESOURCE PEOPLE

(One from this list)
Dr. Tom Kruzich - Psychiatrist
Mrs. Kay Youngerman - Health Worker
Dr. LaMarr Heyrend - Psychiatrist
Dr. Charles Stromberg - Clinical Psychologist
School Psychologists
School Counselors
Ada County Mental Health

FIELD TRIPS

FILMS

FILMSTRIPS

BOOKS

Reference books from the libary.

SUPPLIES

5.15 PSYCHIATRIST

GRADE 5

ACTIVITY 1

Suggested Subject Area: Language Arts

List these vocabulary terms on the board. Ask the students the meaning of each to see how much they are aware of the area. Explain each.

1. psychiatry
2. psychology
3. psychosis
4. psychotherapy
5. subconscious
6. neurosis
7. hysteria
8. ego
9. psychoanalysis
10. abnormal

Divide the class into groups of five and have them brainstorm the activities of a psychiatrist. Have each group present their results.

These activities might be done with the help of the elementary counselor.

MATERIALS 1

ACTIVITY 2

Suggested Subject Area: Language Arts

Divide the class into groups of five students and have them do some research in the following areas:

1. The training needed to become a psychiatrist, psychologist, social worker, counselor.
2. Famous people in these fields: Freud, Turman, Rogers, Adler, etc.
3. Differences between a psychologist and a psychiatrist.
4. Where a person can receive mental treatment.
5. Different kinds of mental illnesses.
6. Phobias.

Report the findings to the rest of the class.

MATERIALS 2

Texts and reference books from the library

ACTIVITY 3 Suggested Subject Area: Health

MATERIALS 3

Have a resource person speak to the class on the mental illness field. He might come from among the following:

Resource person guest speaker

Dr. Tom Kruzich - local psychiatrist
Mrs. Kay Youngerman - health worker
Dr. Heyrend - psychiatrist (methodane project)
Dr. Stromberg - clinical psychologist
School psychologists
School counselors
Ada County Mental Health

ACTIVITY 4 Suggested Subject Area: Language Arts

MATERIALS 4

Roleplay "Peanuts: The Psychiatrist Is In".

Students roleplay a problem, and the class can give their opinions as to what the problem might be and how it might be handled.

Perhaps the school counselor can help.

ACTIVITY 5 Suggested Subject Area: Spelling

MATERIALS 5

Make a spelling game of the words "psychiatrist, psychologist, psychoanalyst, and psychotherapy". They might spell them in teams with the first team spelling all correctly the winner.

5.16 ASSEMBLY LINE WORKER

GRADE 5

CONCEPTS

The assembly line has revolutionized American and World Industry.
The assembly line process is quicker, more efficient, and more economical than the singly built unit.
There are a great variety of occupations in the assembly line process.
The assembly line jobs require educational training either on-the-job, technical setting, or college, depending on the position.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit the students will be able to describe reasons why an assembly line process is used in most industry today.

(a) Description: Simulation of an assembly line process, followed by a class meeting.

Teacher Directions: Refer to activity #6. Follow this activity with a class discussion on the reasons why an assembly line process is used in most industry today.

(b) Description: Writing exercise.

Teacher Directions: Have each student explain in writing reasons why an assembly line process is used in most industry today. (Instruct the students to limit their explanations to one paragraph.)

RESOURCE PEOPLE

FIELD TRIPS

To mobile home or camper assembly plant

FILMS

"Automobile in America" --MP5430

FILMSTRIPS

*"Detroit: Manufacturing Community" --SVE

BOOKS

*Popeye the Sailor and Manufacturing Careers (Comics)

*Simulation Games and Acivities for Social Studies (Booklet) --Youngers and Aceti

SUPPLIES

3 x 5 cards (60)
Clay sticks (30)
Construction paper
Glue
Paints, crayons
Pencils
Rulers
Scissors

*CA Center Furnishes

5.16 ASSEMBLY LINE WORKER

GRADE 5

ACTIVITY 1

Suggested Subject Area: Social Science

MATERIALS 1

Packet

Comics (30):
"Popeye the Sailor and Manufacturing Careers"

The students are to assume there are no automobiles being manufactured (or trucks). Have them list the names of workers that would be eliminated because of this.

Each student then tell the name of one for listing on the board. Explain that one out of six or seven people would not hold their present jobs in the United States (service station workers, taxi drivers, mechanics, etc.).

Then ask them to think of what other industries would be affected and discuss this (rubber, chemical, steel, fabric, paint, petroleum, etc.).

Show them the chart "The World Makes an Automobile" and put it on the bulletin board.

Place the comic books around the room for students to read during free time.

ACTIVITY 2

Suggested Subject Area: Art

MATERIALS 2

3 x 5 cards (60)
clay sticks (30)

This activity may take more than one day. Give each student two 3 x 5 cards. Ask them to draw a line every ½ inch on the cards, both directions.

Explain to them they are going to design an automobile and build a clay model of it. The model is to be from the drawing and the same size. The drawings are to be a side view and a top view of the car.

Indicate not many minute details will be necessary. Let them know how long a time they will have for the drawing.

When the time has expired, give them each a stick of clay or make modeling compound and have them make the model from their drawing. Designate a certain time.

Ask each of them to scratch their initials on the underside of the car. Then place them all on a table overnight.

ACTIVITY 3 Suggested Subject Area: Social Studies

Arrange the model cars on the table and have a number by each. Ask the students to look at all the cars and decide which they feel is "Best-of-Show".

Mention they should not vote for their own. They are to write the number of the car they feel is best on a slip of paper and turn it in to the organizer who will count the ballots. The winner will get a small trophy.

Show the filmstrip "Detroit: Manufacturing Community". Ask them to look for other industries which work with manufacturing: railroads, ships.

MATERIALS 3

Filmstrip:
"Detroit: Manufacturing Community" --SVE

ACTIVITY 4 Suggested Subject Area: Art, Language Arts

Discuss with the students how an assembly line works. Tell them they are going to set up and work a simple assembly line to see if they can make something more efficiently and quicker than if one person does it.

In our assembly line, we are going to assemble a greeting card for the nearest holiday. As our example, Valentine's Day.

Today the students will each design and make a Valentine Card. The class's choice for the best one will be used in assembly. The requirements are:

1. Must use two different colors of paper.
2. Must be cut out.
3. Must have parts to glue together.
4. Must have two drawings on it (cover and inside).
5. Must fold.
6. Must have a poem or saying in it.
7. Must have company name, price, and "Made in U.S.A." on the back.
8. Must have some writing on the front.

Another similar assembly line experience can be found on page 21 of Simulation Games and Activities for Social Studies.

MATERIALS 4

Construction paper
Glue
Paint, crayons
Pencils
Rulers
Scissors

Booklet:
Simulation Games and Activities for Social Studies -- Youngers and Aceti

ACTIVITY 5 Suggested Subject Area: Art, Social Studies

Using the best card from activity #4, set up an assembly line to manufacture them. First cut pasteboard outlines for the card outlines or parts of card outlines. Have the following people on an assembly line.

1. Tracer of the materials
2. Cutter
3. Artist for cover picture
4. Artist for inside picture
5. Writer of poem
6. Writer for front cover and back
7. Gluer
8. Inspector, folder, touchup (one person)

Have three assembly lines set up. Ask them each to make ten cards. Time each and see who did the best job the quickest.

Have three student volunteers make ten cards each as a comparison of assembly line versus single unit.

MATERIALS 5

ACTIVITY 6 Suggested Subject Area: Social Science

Take a field trip to a trailer or camper assembly plant to see an assembly line in action. Emphasize the workers who are on the line.

MATERIALS 6

Field trip

ACTIVITY 7 Suggested Subject Area: Art, Social Science

Give each student a sheet of blank paper. Ask them to draw the inside of a camper from a top view.

When they have finished, mention a few things that should be in to see if they omitted anything.

MATERIALS 7

ACTIVITY Option

Groups of five students build mobile homes out of boxes and other available materials. They should use their imaginations as to what they need to use to do the building.

MATERIALS Option

5.17 MACHINIST - WELDER

GRADE 5

CONCEPTS

-- The machine industry and welding are vital parts of our national production setup.
-- Machinists and welders are required to have training in a technical setting and/or on the job training
-- An operator usually specializes on a particular type machine or a particular type of welding.
-- Machining and welding are desirable and productive occupations.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

Upon completion of this unit the students will be able to describe the major duties of most machinists and welders.

a. Description: Field trip to a machine shop, followed by a class meeting.

Teacher Directions: Refer to activity #3. Upon returning to the classroom, have a class discussion on the major duties of the machinists and welders seen at the machine shop.

b. Description: Writing exercise

Teacher Directions: Have each student write a paragraph describing the major duties of most machinists and welders.

5.17 MACHINIST, WELDER

GRADE 5

RESOURCE PEOPLE

High School Shop Students

FIELD TRIPS

To Machine Shop

FILMS

FILMSTRIPS

* "Machines That Made America Grow, Troll (CA Center)

BOOKS

* SRA Occupational Briefs (CA Center)

Encyclopedias

SUPPLIES

*CA Center Furnishes

ACTIVITY 1 Suggested Subject Area: Social Studies

Have students look up "Machinists" and "Welders" in the SRA Occupational Briefs. Read them to the class.

Show the filmstrip. This filmstrip shows basic economic relationships between the producers of various goods and the ultimate consumer. Although a machinist or welder is not specifically mentioned, point out the role played by those occupations with each machine shown: farm machinery, flour mill, bakery, cotton picker, etc.

As a follow-up students might work in groups. One group list products that originate on the farm, another list products originating on a ranch, in a forest, deep inside the earth. Still another group might list synthetics, such as plastic items. Each group should be ready to explain their list and where in the process the machinist or welder will fit.

MATERIALS 1

SRA Occupational Briefs

Filmstrip:
"Machines That Made America Grow"
--Iroll (CA Center)

ACTIVITY 2 Suggested Subject Area: Social Studies

Students investigate and prepare reports on various kinds of machines machinists operate and different types of welding. It is important that they explain what the machines actually do and what it compares with similar to those shown in the World Book Encyclopedia.

Topic areas:

1. engine lathe
2. milling machine
3. shaper
4. planer
5. jig borer
6. grinder
7. boring machine
8. power saws
9. arc welding
10. resistance welding
11. gas welding

The main purpose of the exercise is to make students aware of various processes rather than being able to name the processes. It would be good to have an example of each on hand plus some small tools.

MATERIALS 2

Encyclopedias

ACTIVITY 3 Suggested Subject Area: Social Studies

Take a field trip to a machine shop to observe machinists and welders at work. Emphasize the safety measures necessary in these professions.

Review for Field Trip:
"How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom?"
from appendix of this book.

MATERIALS 3

Field trip to a machine shop

ACTIVITY 4 Suggested Subject Area: Social Studies

Ask students from the machine shop and welding classes in high school to come to the class and talk with the students about their classes.

Ask them to bring any tools and materials they are able to display.

Review for Guest Speaker:
"Communicating With Talent", "Resource Talent", "Questions for Group Conferences" from appendix of this book.

MATERIALS 4

Resource Persons:
High School Students

5.18 PAPER MACHINE OPERATOR GRADE 5

CONCEPTS

Paper is one of the fastest growing of all products in the United States.
We all use paper products every day.
A machine operator must be knowledgeable and be skilled in judgment.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

Upon completion of this unit, students will be able to describe five types of jobs which are paper manufacturing related.

1.(a) Description: Class meeting

Teacher Directions: Have the students describe five types of jobs which are paper manufacturing related. Make a list of the jobs on the blackboard as they are described by the students.

(b) Description: Written test

Teacher Directions: Ask each student to make a list of five types of jobs which are paper manufacturing related.

RESOURCE PEOPLE

Boise-Cascade employee of box factory - Nampa

FIELD TRIPS

FILMS

"Paper and Pulp Making", MP 1133 (IMC)

FILMSTRIPS

"Paper", 975 IMC

BOOKS

*Pamphlet: "How You Can Make Paper" - CA Center
*The Story of Paper and Pulp - CA Center

Encyclopedias
Any available library books on paper and paper making

Yellow Pages of Learning Resources, MIT Press (School Library)

SUPPLIES

*fine mesh wire
metal pan
basin
facial or toilet tissue
blotting paper
starch
egg beater
rolling pin
electric iron
newspaper strips
wheat paste
wire frames
different sizes and shapes of board (wood chips)
microscope
balance
toothpicks
overhead projector
flash cards
toothpicks
clothes hangers
rulers or tape measures

*S.R.A. Occupational Briefs

*CA Center Furnishes

5.18 PAPER MACHINE OPERATOR

GRADE 5

ACTIVITY 1

Suggested Subject Area: Science

MATERIALS 1

Suggest to the students that they look around the room and make a list of all the objects made of paper. After studying the list a few minutes, have the children discuss what the world might be like if there were no paper or paper products to be found.

Also discuss new paper products. Have the children brainstorm on products or objects that could be made of paper. Then go back and make a list of the feasible ones.

Optional: Children could write to a paper company and send their ideas.

ACTIVITY 2

Suggested Subject Area: Math/Science/Social Studies

MATERIALS 2

Class discussion of the importance of recycling anything. (Bring in ecology)

Set up project of collecting paper products. (Check location of recycling center)

From the money received for products children could vote on their favorite educational magazine and subscribe to it for the room. Or use money for something else that deals with paper.

Continue this activity throughout unit.

ACTIVITY 3 Suggested Subject Area: Science

How paper is made in the paper mill.

Start the discussion by drawing from the students the knowledge of the process of making paper. From there make some hypothesis of what might be involved. Charts can be made. From there have children check resource books and encyclopedias to see how right they were. (Could be done in groups)

Show film and/or filmstrip. Discuss. Bring in what qualifications there might be for a paper machine operator.

Give a brief talk on how paper can be made by hand. (Will actually do this in next activity.)

MATERIALS 3

Filmstrip:
"Paper", 975 IMC

Film:
"Paper and Pulp Making" MP-1133 IMC

Pamphlets:
"How Paper is Made" - Boise Cascade
"The Story of Pulp and Paper"
- American Forest Institute
(both CA Center)

Books:
How Paper Is Made, David Cooke
About Paper, Melmont
Compton's Young Precyclopedia
Living in United States (text)
Any set encyclopedias

ACTIVITY 4 Suggested Subject Area: Art/Math/Science

Making paper by hand. It would be more feasible to group the children.

1. Go through procedure orally with children first.
2. Have students go to stations and go through process step by step.
3. It might be helpful to have a simplified copy of the instructions posted at each station.

*Actual step-by-step procedure for making paper by hand is in the booklet "How to Make Paper" by the American Paper Institute. (In packet)

MATERIALS 4

Packet for Unit 5.20
fine-mesh wire screen
metal pan - bottom cut out, edge ½"
forming rack or mold (second pan which will fit inside the first. Cut out bottom leaving sides.)
basin (holding 10 quarts)
30 sheets facial tissue (not wet strength.- toilet tissue works well)
2 sheets blotting paper
laundry starch
egg beater or blender
rolling pin
electric iron (household type)

ACTIVITY 5 Suggested Subject Area: Art/Science/Math

Have children make a collection of different types of paper. (Weight, grain, etc.)

If possible look at different types of paper through a microscope. Compare.

Different types of paper require differences in their manufacture. Do some individual research to find out about this.

*The construction paper found in most schools is an excellent example for seeing the tiny fibers found in paper. Also might let the children chew up some toothpicks and look at the fibers under the microscope. It also might be fun for the children to weigh the different types of paper.

Mobiles: Mobiles can be made by hanging the different types of paper. Let the children create their own shapes and designs.

MATERIALS 5

Different sizes and shapes of paper
Different grains and weights of paper
String
Clothes hangers or twigs (sizes can vary)
microscope
balance scale
tooth picks

ACTIVITY 6 Suggested Subject Area: Math/Science/Reading

This activity will help the children to know the various qualifications needed to work in a paper mill.

Math/Science: A great deal of approximation is done by employees. Set up a series of stations where different sizes and shapes of boards can be found. Number each piece. Have students estimate the size and possibly the weight of the pieces of boards. After they have written down their estimates, measure and/or weigh the different pieces and have them compare their estimates.

Science: Class discussion of the safety factors involved in a paper mill.

Reading: Workers must be able to read quickly the markings on boards as they move by on belts. To illustrate this, put up cards on a screen. Begin slowly and then speed up. Have students see how fast they can read the markings on the cards. (Children love this)

MATERIALS 6

Different sizes of boards or wood chips
Overhead projector
Flash cards with words or numbers written on them
Rulers or tape measures
Scale (optional)

ACTIVITY 7 Suggested Subject Area: Art/Science

This activity will help children see how paper is made. (Fibers matted together form paper.)

Make articles of paper mache. Think of the strips of paper as fibers and one builds upon them to form the finished product.

The objects which the children form might be tied in to another area of study.

MATERIALS 7

cut up newspaper strips
wheat paste
wire frames (if needed)

5.19 STEEL WORKER GRADE 5

CONCEPTS

The steel industry is a vital part of our national economy.
The steel industry affects all our lives through its products.
Employees in the steel industry include a great variety of job types.
Most steel workers are blue collar workers.
Jobs in the steel mills range from those requiring on-the-job training to those requiring highly technical skills.
Jobs in the steel industry are desirable and productive positions.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

Upon completion of this unit, the students will be able to demonstrate their knowledge of the steel making process by selecting a topic area to investigate and prepare for an oral presentation to the class.

Description: Oral report

Teacher Directions: Refer to activity #1.

ACTIVITY 1 Suggested Subject Area: Social Science/Science/Art
Language Arts

MATERIALS

Packet for Unit 5.25
Encyclopedias
Library books

Steel Exhibit Kit - Inc

Filmstrips from Inc (optional)
"Iron and Steel"
"Story of Steel"
"Steel"
"Steel and the Nation"

Pasteboard
Rough paper
Crayons
Paints
Paste
Scissors
Construction paper

MATERIALS

ACTIVITY 1 (Continued)

7. Coating and Finishing
   a. Tin plate
   b. Cold rolled annealed steel
   c. Galvanized steel
8. Steel Markets - finished products
   a. Kinds of products
   b. How many products from a ton of steel? (World Book Encyclopedia, page 351)
9. Steel Workers
10. Map of United States
    a. Steelmaking centers
    b. Iron ore deposits } (World Book Encyclopedia, page 346)
    c. Limestone deposits
    d. Coking-coal deposits
11. Charts
    a. Leading steel producing states } (World Book Encyclopedia)
    b. Leading iron ore mining areas
    c. Steel, leading countries (Merit Student Encyclopedia)

Some of these categories will require more than one student working on them. Each sub class will probably require a separate student as well as several on numbers 1 and 9.

After the work has been done, the presentations should be made to the class. It is suggested other 5th grade classes be invited for the presentations. Let your students know ahead of time that others will be present.

The steel kit from IMC might be on display and used.

Suggestion: Give the completed materials to another class so they can study the process or make a display of it in a place where the entire school can see.

5.20 BAKER GRADE 5

CONCEPTS

Some bakers prepare bread in large quantities to be sold to stores.
Some bakers work in stores and sell their products at the store.
Baking is a precise process, carefully planned and monitored.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Given a flow chart of the home-baking process and a list of steps, the students will be able to arrange the steps in proper sequence.

   (a) Description: Students complete a flow chart of the home baking process.

   Teacher Directions: Refer to activity #5.

2. Without the use of reference materials, the student will be able to describe the baker's job including his responsibilities and necessary skills he must have.

   (a) Description: Role-play

   Teacher Directions: Let the students take turns role-playing a baker explaining his job, including his responsibilities and the skills necessary to be a baker.

   (b) Description: Writing exercise

   Teacher Directions: Have each student write a paragraph about the baker's job including his responsibilities and the necessary skills he must have.

RESOURCE PEOPLE

FIELD TRIPS

Eddy's Bakery

FILMS

"Bread" - MP 1025 IMC

FILMSTRIPS

*"How We Get Bread", SVE (CA Center)
*"Bakery Forewoman - People Who Organize Facts"
- Guidance Assoc. (CA Center)

"Bread" - FS269 IMC

BOOKS

Yellow Pages of Learning Resources
- MIT Press (School Library)

* SRA Work Brief (Packet)

SUPPLIES

Recipe for making bread on a transparency
*Bowls
*Spoons
*Measuring Cups and Spoons
*Bread Pans
*Flour Sifter
(CA Center)

Aprons
Timer
Flour
Sugar
Salt
Yeast
Shortening
1 cube butter
(Teacher and Students)

*CA Center Furnishes

5.20 BAKER

GRADE 5

ACTIVITY 1 Suggested Subject Area: Reading

Have the students meet in groups of four. Half the groups brainstorm the work and products of a baker. Half the groups brainstorm the jobs in a bakery. Meet as a class and present the results.

Have the students read orally parts from the SRA Work Brief "Bakers" and "What Can Be Learned at a Bakery?" in Yellow Pages of Learning Resources. (Page 11) There are many good suggestions and much information that can be used. Refer to pages 85 - 87 of the book, "How to Use This Book". Use as many of the suggestions as you feel will add to the students' understanding.

MATERIALS 1

SRA Work Brief "Bakers" (packet)
Yellow Pages of Learning Resources

ACTIVITY 2 Suggested Subject Area: Math, Penmanship

Ask students to write a recipe for making bread from what they already know about bread.

After most have finished, discuss their recipes. Was it easy? Why or why not? Discuss their experiences with breadmaking before. Make a list of ingredients you need to make bread.

Using the overhead projector show a recipe for making bread. For math practice suggest they double the recipe and copy it carefully for future use. Suggest they bring other recipes from home to compare.

Optional: Assign two students to interview a baker.

MATERIALS 2

Recipe for making bread on a transparency (in packet)

Yellow Pages of Learning Resources

GRADE 5

ACTIVITY 3 Suggested Subject Area: Social Studies

Show film "Bread" and filmstrip "How We Get Bread". Discuss steps in making bread -- compare with recipes.

What would we need to make bread? List on board.
Divide class into groups of 4 or 5. Have groups meet to plan breadmaking.

1. Read The Young Cook's Bake-a-Bread Book
2. Choose a recipe
3. Divide responsibilities for things needed to make bread - ingredients, tools. Write down things needed.
4. Divide up work responsibilities. Write down.
   a. measurer
   b. mixer
   c. kneader
   d. shaper
   e. baker

MATERIALS

Film "Bread" — IMC

Filmstrips: "How We Get Bread", SVE (CA Center)
"Bread" -- IMC (optional)

Book: The Young Cook's Bake-a-Bread Book (Packet, CA Center)

7 large bowls
7 small bowls
7 mixing spoons
7 sets measuring spoons
7 measuring cups
1 flour sifter
7 bread pans
7 trays (to knead on)
aprons
flour
sugar
salt
yeast
shortening

ACTIVITY 4 Suggested Subject Area: Math, Social Studies

Students in groups of 4 or 5 make the bread. Use recipe from the overhead projector or Bake-a-Bread Book. They can bake it today or tomorrow in the school kitchen.

*Teacher may want to make one of the student's recipes from Activity 3 to show necessity for precision.

Eat bread. Each group choose a member to report on what group did.

Review:
"How to Get the Most From a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom?"
(From Appendix to this book)

MATERIALS 4

Equipment for baking bread listed in activity 3.

Ingredients for bread
(Either brought from home or purchased. If brought from home the teacher should bring some of each ingredient to avoid disappointing a group.)

1 cube of butter for bread.

ACTIVITY 5 Suggested Subject Area: Social Studies

Field trip to Eddy's Bakery or a store bakery.

Upon returning list all the jobs you saw at the bakery. Answer the questions:

1. What does a baker do?
2. What are some of the advantages of being a baker?
3. What are all the products of a bakery?
4. How could you become a baker?

MATERIALS 5

Field trip to Eddy's Bakery

ACTIVITY 6 Suggested Subject Area: Social Studies, Penmanship

Have students complete a flow chart of the bakery process and one of the home-baking process.

Discuss similarities and differences.

Interview report. (Optional)

Roleplay the baker explaining his job.

MATERIALS 6

Paper
Pencils or Pens

ACTIVITY 7 Suggested Subject Area: Social Studies

Show and discuss the filmstrip : "Bakery Forewoman - People Who Organize Facts"

MATERIALS 7

Filmstrip:
"Bakery Forewoman - People Who Organize Facts"
--Guidance Associates

5.21 FISH HATCHERY MANAGER GRADE 5

CONCEPTS

Fish hatcheries are operated both as public and private concerns.
Without fish hatcheries, our fish population would soon be depleted.
The fish hatchery manager must be well educated in his field of work.
The job of fish hatchery manager is both desirable and productive.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit the students will be able to diagram the life cycle of a salmon or a steelhead trout.

   Description: Draw-a-diagram illustration.

   Teacher Directions: Refer to activity #2.

RESOURCE PEOPLE

FIELD TRIPS

To a fish hatchery.

FILMS

"Fish and Their Characteristics"
"Saga of the Sockeye"
"Way of the Trout"
"Troubled Journey"
--Available from Idaho Fish and Game Department

FILMSTRIPS

BOOKS

Compton's Young Children's Encyclopedia

Studying Music --American Book Company (6)

SUPPLIES

Packet of Information

ACTIVITY 1 Suggested Subject Area: Science

Introduce the unit by discussing why it is necessary to have fish hatcheries (public and private).

Discuss methods of getting the fish from the hatchery to lakes, rivers, or streams.

Show the film "Fish and Their Characteristics". (10 minutes)

Discuss the film when finished.

MATERIALS 1

Film:
"Fish and Their Characteristics"
--Idaho Fish and Game Dept.

ACTIVITY 2 Suggested Subject Area: Science, Art

Show one or more of these films:

"Saga of the Sockeye" (13½ minutes)
"Way of the Trout" (35 minutes)
"Troubled Journey" (20 minutes)

Ask the students to draw the life cycle of a salmon or a steelhead trout.

Go over these when they are finished. Point out where the fish hatchery may enter in.

Discuss obstructions of the cycle by man (fishing for sport, commercial fishing, dams, pollution, etc.).

There is a good description of salmon in Compton's Young Children's Encyclopedia, pages 5 and 6.

MATERIALS 2

Films:
"Saga of the Sockeye"
"Way of the Trout"
"Troubled Journey"
--Idaho Fish and Game Dept.

Book:
Compton's Young Children's Encyclopedia

5.21 FISH HATCHERY MANAGER

GRADE 5

ACTIVITY 1 — Suggested Subject Area: Music

Students learn to sing "The Trout" by Shubert.

This is an excellent example of folk music by a great composer.

MATERIALS 1

Songbook:
Studying Music 6
--American Book Company

ACTIVITY 2 — Suggested Subject Area: Social Science

Take a field trip to a fish hatchery.

Find out both the process of hatching, raising, and transplanting and the work done by the employees.

MATERIALS 2

Field trip

ACTIVITY 3 — Suggested Subject Area: Math

Figure math problems concerning:

How many fish can be raised in a given area of a hatchery?

How many fish can a certain size lake support?

What is the cost of raising a fish by a commercial hatchery and the - end profit?

How many fish can be raised each year by a certain size hatchery?

Many problems can be designed from these and the packet information.

MATERIALS 3

Teacher-made math sheet (one per student)

RESOURCE PEOPLE

Television student or students to serve as resource person to committees.

or

Radio or Television announcer.

FILMS

FILMSTRIPS

*"Recording Engineer" People Who Work in Science, G.A., (CA Center)

*"TV Sports Editor" People Who Organize Facts, G.A., (CA Center)

SUPPLIES

Newspapers - one per student (The school should have a supply of these)

Video tape recorder and monitor
-- IMC

Tape Recorders and Cassettes
--School

FIELD TRIPS

Television Station

BOOKS

* Come to Work With Us in a Television Station
--Sextant (CA Center)

Yellow Pages of Learning Resources
--MIT Press

*CA Center Furnishes

7.22 TELEVISION - RADIO ANNOUNCER

GRADE 5

ACTIVITY 1 — Suggested Subject Area: Language Arts — MATERIALS 1

Discuss qualities of good speech. What makes a voice easy to listen to?

Divide class into 4 or 5 small groups. Give each group a cassette recorder and have students take turns reading a nursery rhyme as if it were the latest news. It might prove easier to rewrite nursery rhymes in news format. After all voices have been recorded, replay the tape and group members offer suggestions for each speaker.

If for students at ease, perhaps the teacher should record his voice first and have class offer suggestions for improvement.

Save these tapes. Label by group number.

ACTIVITY 2 — Suggested Subject Area: Social Studies, Language Arts — MATERIALS 2

Watch television news broadcast in class. (Noon or morning news report before viewing ask students to watch for speech quality and content of each news item.

Discuss their observations and content of each news item. (Teacher may want to record broadcast and listen to it a second time for content.)

Give each student a newspaper with directions to select and prepare a news item for broadcast. Time limit thirty seconds.

Suggest students rehearse with a partner.

Newspapers - one per student

Filmstrip:
"TV Sports Editor" People Who Prepare News
(A Center)

ACTIVITY 5 Suggested Subject Area: Language Arts

Invite a student from TV Programming Class at Boise State College, or a local television or radio station to tell about preparation for a locally produced program.

Have groups meet and prepare plans for program with speaker as resource person to provide assistance with technical problems.

Also teach camera crew how to operate video-tape recorder and camera. (Or ask Mr. Marquart to come out and do so.)

Review: "Communicating With Talent"
"Resource Talent"
"Questions for Group Conferences"
from appendix of this book.

MATERIALS 5

Resource Person:

Student from B.S.C. Television class or local T.V. or radio announcer

Video-tape Recorder and Monitor
--IMC

ACTIVITY 6 Suggested Subject Area: Language Arts/Social Studies

Rehearse program as small groups and as a total production.

These programs might be: newscasts, sports, weather, or commercials. Commercials seem to work well as they are short and props are easily used.

MATERIALS 6

VTR Equipment and TV set

ACTIVITY 7 Suggested Subject Area: Language Arts/Social Studies

Produce and tape record program or short programs. View and critique.

MATERIALS 7

Video-tape Recorder and Monitor
--IMC

TV set

ACTIVITY 8 Suggested Subject Area: Science/Social Studies

Field trip to a television station.

Review: "How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom"
Appendix of this book.

MATERIALS 8

Field trip to television station.

5.23 TELEVISION REPAIRMAN

GRADE 5

CONCEPTS

Television sets are complicated and require trained people to repair them. A television set has many parts which must work properly if the set is to function well.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

The students will be able to describe the work of a television repairman and discuss his roll in the communication process.

(a) Description: Class meeting

Teacher Directions: Have the students discuss the work of a television repairman and his role in the communication process. (This class meeting should follow activity #2).

(b) Description: Writing exercise - incomplete sentences

Teacher Directions: Have each student complete the following two (2) sentences.

1. When I grow up, I want to be a television repairman because _____. (Tell the students to pretend that they are truly interested in television repair work and want to be a television repairman when they grow up).

2. As a television repairman, I would play an important role in the communication process because _____.

5.23 TELEVISION REPAIRMAN

PAGE 5

CONCEPTS

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A television set has many parts which must work properly if the set is to function well.

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(b) Description: Writing exercise - incomplete sentences

Teacher Directions: Have each student complete the following two (2) sentences.

1. When I grow up, I want to be a television repairman because _____. (Tell the students to pretend that they are truly interested in television repair work and want to be a television repairman when they grow up).

2. As a television repairman, I would play an important role in the communication process because _____.

ACTIVITY 1 Suggested Subject Area: Science

Take an informal survey of time spent watching television by members of the class. Discuss value and limitation of television of television as communications tool.

Ask students how a television works. Get ideas and jot them down on board.

Use transparency to illustrate simplified explanation of how television works.

MATERIALS 1

Transparency showing how television works

ACTIVITY 2 Suggested Subject Area: Science

Invite speaker to explain in simplest possible terms how a television set works. Demonstrate how problems in television sets can be located and repaired.

Review for Guest Speaker: "Communicating With Talent", "Resource Talent", "Questions for Group Conferences" from appendix of this book.

MATERIALS 2

Resource person:
Television Repairman or
Student in electronics

5.23 TELEVISION REPAIRMAN

GRADE 5

ACTIVITY 3 — Suggested Subject Area: Science

Take apart an old, non-functional television set to see the many parts.

Stress how complex a television set is.

MATERIALS 3

Old non-functional television set (Remove plug, cord, and picture tube -- danger of picture tube implosion)

ACTIVITY 4 — Suggested Subject Area: Science

Show the filmstrip "How a Color TV Works", IMC 487

(This strip is quite technical, but has good content. It was produced for grades 10-13)

MATERIALS 4

Filmstrip:
"How a Color Television Works"
--IMC 487

ACTIVITY 5 — Suggested Subject Area: Science

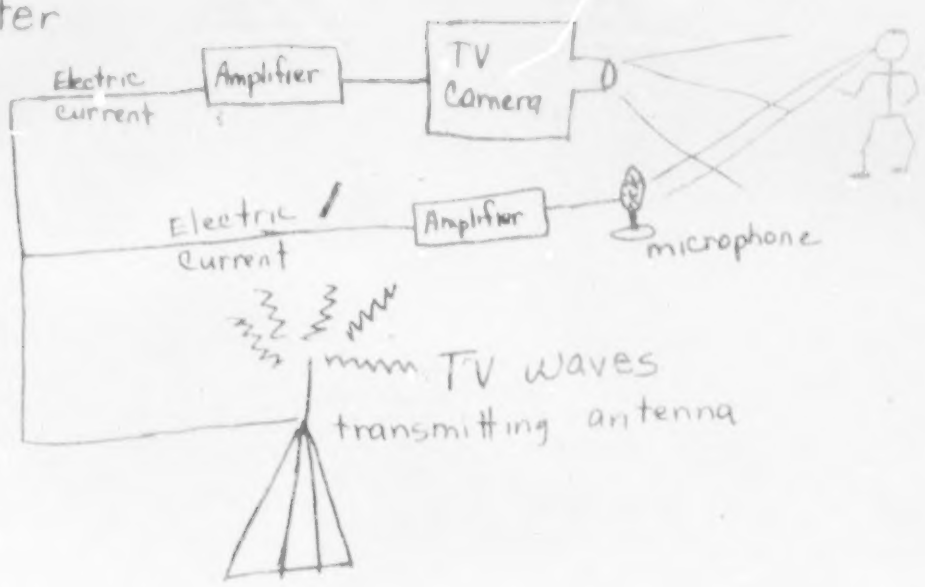
Go through the article "Television Repairman" on page 70 of Yellow Pages of Learning Resources. There are many good suggestions and much information that can be used. Refer to pages 85 - 87 of the book, "How to Use This Book". Use as many of the suggestions as you feel add to the students' understanding.

MATERIALS 5

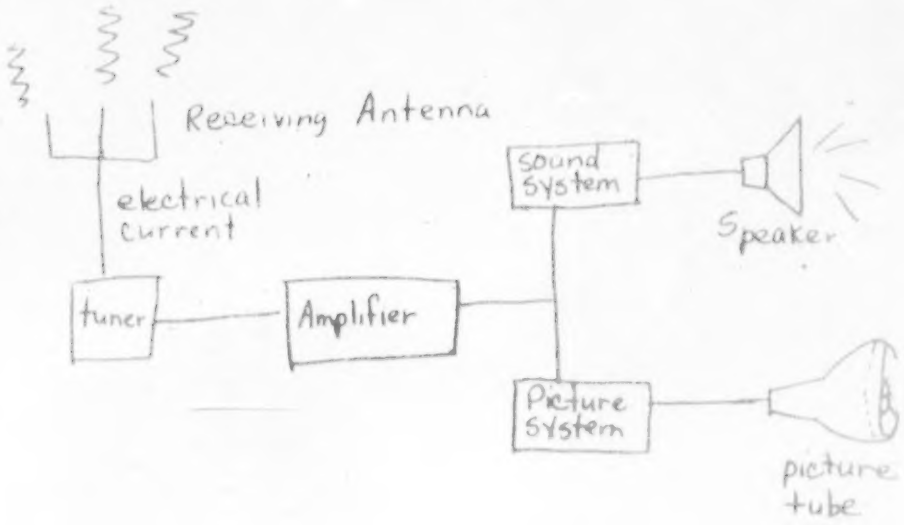
Book:
Yellow Pages of Learning Resources
--MIT Press (School Library)

How A Television Works

Transmitter



Receiver



5.24 AIRLINE EMPLOYEES

GRADE 5

CONCEPTS

Air transportation is a vital part of our national economy.
Air transportation is a rapidly growing industry.
Air transportation utilizes a number of methods of power.
Air transportation includes numerous types of craft.
Air transportation involves many varied employment positions.
Jobs within air transportation are desirable and productive occupations.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

The the conclusion of these units, the students will be able to name 10 different air related occupations and describe the work done by each.

(a) Description: Trip to the Boise Municipal Airport, followed by a class meeting.

Teacher Directions: (Prior to leaving on the fieldtrip, make sure all students have a notebook and pencil to take with them). During the trip to the Boise Municipal Airport (refer to the "conclusion" activity), instruct all students to make a list of as many different air related occupations that they see there and write a brief description of the work done by each. Upon returning to the classroom have a class meeting to discuss the various types of air transportation jobs seen by the students. Compile students' lists to make a class list of air related occupations.

(b) Description: Small group discussion (optional criterion test, if fieldtrip to the Boise Municipal Airport is not taken).

Teacher Directions: Group students into small groups of four or five. Assign a recorder to each group. Have each group make a list of as many air related occupations as they can think of and a brief description of the work done by each. Instruct each recorder to write down his group's list of occupations as well as the brief job descriptions. Allow ten to fifteen minutes for this activity. Have each recorder share his group's list with the entire class. Compile all lists to make a class list.

5.2 4 AIRLINE EMPLOYEES GRADE 5

RESOURCE PEOPLE

FIELD TRIPS

Municipal Airport
(If a directed tour can be arranged)

FILMS

"Airline Stewardess" - MP 5248 IMC (Optional)

"From Kitty Hawk to Jumbo Jet" - MP 5402 IMC

FILMSTRIPS (All CA Center)

*"Air Systems"
*"The Story of Flight" } Coronet
*"How Airplanes Fly"

*"Aircraft Engines: Pistons and Jets" - Coronet
*"A Trip to an Airport" (with record) - ERS

BOOKS

Various library books on flying industry.
The Big Book of Space, by E.O. Hurst
(school library)

*The Executive Manual on the Construction of Paper Projectiles or How to Build Paper Airplanes at the Office by Rick Olson
(CA Center)

Texts: Discovering Science, 5
Our Language Today

*Funny Folks in Limerick Land (CA Center)

SUPPLIES

*Packet
* Individual Filmstrip Viewers
* United Airline Schedules
* Ideal Crossword Puzzles
(CA Center)

thick soda straws
wooden spool
all purpose cement
shoe boxes (10)
scissors
molding clay
tape
3x5 file cards (10)
grease pencil or marker
tape measure
5 sizes of balloons (total of 50)
5 posterboards for screens
record player

*"Popeye and Transportation Careers"
(Room set of Comic Books)
CA Center

*CA Center Furnishes

5. 24 AIRLINE EMPLOYEES GRADE 5

ACTIVITY Introduction Suggested Subject Area: Social Science

The activities in this unit are programmed for the students. Other than the first activity, the film, and the last, the field trip, the students will be working independently for nine days in this industry area. It is suggested that one hour be set aside each day for the students to work on these activities.

Each student will be given a notebook of activities, numbered from 1 to 10. They are to complete nine of these during the next nine days or sooner, depending on their speed. They may choose to begin with any of the nine and thereafter go to any other, but eventually they should cover nine of the ten. They may omit one activity of their choosing.

Mention to the students that it will be crowded if all students start with the same activity, therefore they need to spread themselves around. Usually there should be three students at a time in any activity area. Activity one should be considered early in the selections, and Activity four is a group activity. Directions for each activity are given in the students' notebooks. Materials are listed with each activity. Stations need to be set up and numbered in the room, hallway, and/or other rooms available.

The first day, before the students start their nine activities, show the film "From Kitty Hawk to Jumbo Jet" or the filmstrip "A Trip to the Airport" to all the students. Have a discussion of the film or filmstrip. Then pass out the notebooks to the students, explain the procedure, and indicate they will begin the next day.

While this unit is in progress have on display the room set of King Features comic books "Popeye and Transportation Careers".

MATERIALS Introduction

Film:
"From Kitty Hawk to Jumbo Jet"
--MP 5402 IMC

Filmstrip:
"A Trip to the Airport" - ERS
--CA Center

Packet of materials and pictures
--CA Center

Comic books: "Popeye and Transportation Careers"
--CA Center (room set)

Activity 1 Reading

You will read at least one book about air transportation or airline employees and make a written report on this page. Choose the book from the library or read another you may have access to. Be sure to have your teacher approve your choice. Most of the reading of this book should be done in your spare time; otherwise you won't get your other activities finished.

Book Report

Title of Book _____

Author _____

Publisher _____

Date of Publication _____

Write a paragraph or more which tells about this book.

Materials: Library Book

5. 24 AIRLINE EMPLOYEES

GRADE 5

Activity 2

Art

Look at the book The Executive Manual on the Construction of Paper Projectiles or How to Build Paper Airplanes at the Office. There are also some diagrams for you to follow.

For this activity you are to choose 2 of the 5 airplanes and build them using your own paper and materials. Notice that some can be decorated and others have pilots in them. If you choose, you may build more than two, however, remember you have many other activities so use your time wisely.

Check those you build.

_____ Plan E Executive 707

_____ Plan I Intimate Interlude Special

_____ Plan M Faster

_____ Plan V The Paul V-T-O

_____ Plan D Demolition Missile

You get only one test flight in the classroom. All others must be outside. Remember: Every litter bit hurts.

Materials:
Book: The Executive Manual on the Construction of Paper Projectiles or How to Build Paper Airplanes at the Office
Plans from packet
paper

Activity 3 Social Science

Read the comic book, "Popeye and Transportation Careers". Then list eight careers in aviation mentioned in the comic book.

1.

2.

3.

4.

5.

6.

7.

8.

Materials: Room set of King Features comic books: "Popeye and Transportation Careers"

Activity 4

Science

This will be a science experiment from your science text, Discovering Science, 5. You are to do this activity in groups of three or four students. Turn to page 353. One student read this page aloud. Then get all the equipment you will need from Activity 4 box including five balloons, one of each size. Do not waste the materials or there will not be enough for other students.

As a group, work the experiment on pages 356, 357 and 358. Record your findings on this page. Do not hesitate to ask for help.

Size of Balloon	Thrust Number Reached
1.	
2.	
3.	
4.	
5.	

Materials:
- Text: Discovering Science, 5
- thick soda straws
- wooden spool
- all purpose cement
- shoe boxes
- scissors
- molding clay
- tape
- 3 x 5 file cards
- grease pencil or marker
- tape measure
- 5 sizes of balloons

Activity 5 Language Arts

In this activity, we would like for you to use your imagination to compose two things, a limerick and a four line poem. These should be on some subject of air transportation, either flight, the planes, or the workers. The poem should be no problem, but the form of the limerick may be tricky. An example is listed. Also, look in Our Language Today, pages 315 - 318. Note that lines 1, 2, and 5 rhyme, as do lines 3 and 4.

There once was a pilot named Dwight,
Who tried for a record high flight,
But he ran out of luck
When his throttle got stuck,
And his plane disappeared out of sight.

Limerick:

Poem:

Materials: Text: Our Language Today
Book: Funny Folks In Limerick Land

Activity 6 Math, Geography

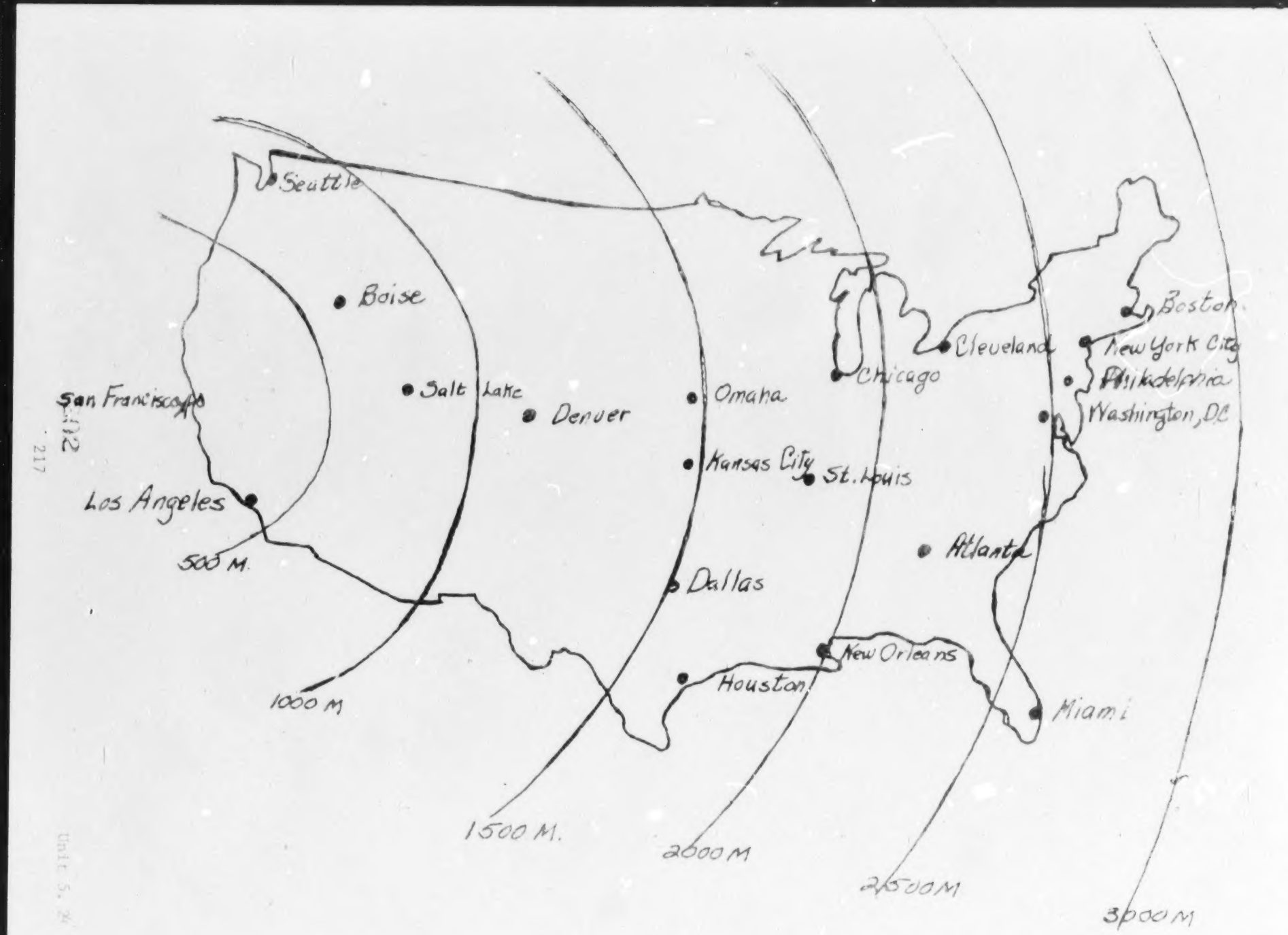
You are going to ship some cargo by air freight from San Francisco to ten different destinations. The object is to determine the cost of shipping. There is a United States map on the following page which indicates distances by 500 miles from San Francisco. Here are the shipping costs: $7.00 for each 100 pounds for every 500 miles shipped. Any part of 100 pounds counts as 100 pounds and any part of 500 miles counts as 500 miles.

Example: Ship 250 pounds of furs from San Francisco to Kansas City. Cost $63.00 How did we get it? 250 pounds is over 200, therefore it is $7 for each 100 pounds or part of 100 pounds, or $21. (3 x 7) Look at the map. Kansas City is between 1000 and 1500 miles distance and the rate is for every 500 miles or part of 500 miles, or 3 times the rate. Therefore, 3 x $21 = $63.00

Now you work these. Ask for help if necessary.

1. Ship 285 pounds of grapes to Chicago. Cost_____
2. Ship one half ton of machinery to New York City. Cost_____
3. Ship 30 pounds of silver to Boston. Cost_____
4. Ship 300 pounds of pictures to Denver. Cost_____
5. Ship 700 pounds of paper to Boise. Cost_____
6. Ship one tenth of a ton of shoes to Miami. Cost_____
7. Ship 863 pounds of boxes to Omaha. Cost_____
8. Ship 100 pounds of jewelry to Los Angeles. Cost_____
9. Ship one ton of pepper to Salt Lake City. Cost_____
10. Ship 600 pounds of shrimp to Cleveland. Cost_____

Check your answers with the teacher when you are finished.


Seattle
Boise
San Francisco
Salt Lake
Denver
Omaha
Chicago
Cleveland
Boston
New York City
Philadelphia
Washington, DC
Kansas City
St. Louis
Los Angeles
Atlanta
Dallas
New Orleans
Houston
Miami
500 M.
1000 M
1500 M.
2000 M
2500 M
3000 M

Activity 7 Geography, Reading

You are going to take a trip from Boise to Atlanta. You must figure out your schedule from the United Air Lines Schedule in the Activity 7 box. You will notice that there are no flights directly from Boise to Atlanta; therefore you will have to change planes one or more times in New York, Washington, D.C., or Baltimore, or whichever route you choose. The object is to get there in the shortest time possible.* Since money is obviously no object to you, you are traveling first class all the way.

Record the following as it is needed.

Example: Page 8, Boise to Akron, Ohio
Leave Boise 12:10 p.m. MDT
Flight 374 to Chicago
Flight 552 Chicago to Akron
Arrival time 7:06 p.m. EDT
Time of flight 6 hrs. 54 min. minus 2 hrs. = 4 hrs. 54 min.
There will be a meal and cocktails served on the plane.

*After you have figured the total time, subtract 2 hours for time zone changing.

Leave Boise (time)_____

Flight #_____

Change planes at_____

to Flight #_____

Arrive in_____ at (time)_____.

Was a meal served?_____

Catch Flight#_____ at (time)_____.

Change planes (if necessary) at_____

To Flight #_____(if necessary)

Arrive in Atlanta at _____

Was a meal served?_____

Activity 7 (Continued)

Total time from Boise to Atlanta_____

Lay over time between planes_____

Did you need help to figure this schedule?_____

Did you enjoy your flight?_____

Show your results to the teacher for checking.

Materials: United Airlines Schedules

Activity 8 Art, Science

Today there are a number of forms of power used by aircraft. Knowledge about the operation procedures of some of these might some day be useful to you.

Using the book, The Big Book of Space, diagram 1) the turbojet, 2) the ramjet, and 3) the rocket. These are found on pages titled "Jet Motors" and "Rockets". You might also color your diagrams. Read the materials under each of the three types, so you become familiar with your diagrams. Make your diagrams on this page and the next.

Materials: Library Book: The Big Book of Space

Activity 9 Social Science

There are five filmstrip stations set up for you to view. You will view at least 3 of the 5 filmstrips. Write a very brief paragraph about the contents of the filmstrips you see.

1. Air Systems

2. The Story of Flight

3. How Airplanes Fly

4. Aircraft Engines: Pistons and Jets

5. A Trip to an Airport (with record)

Materials: Filmstrips listed above plus 5 individual viewers. (CA Center)

Activity 10 Language Arts

At this station you will find 8 different crossword puzzles whose subjects cover transportation and communication. You are to do five of these. You may choose which five you want to do. Use only the markers furnished and wipe the puzzles clean when you finish. Check the ones you worked below. They count only if you complete them. Are you fast enough to do all eight in the allotted time?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Materials: Ideal Crossword Puzzles and markers

5.24 AIRLINE EMPLOYEES

GRADE 5

ACTIVITY Conclusion

Suggested Subject Area: Social Science

Arrange for a directed tour of Boise Municipal Airport during a time a jet will be arriving and departing.

Review:
"How to Get the Most From a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Do You Use Your Experience When You Return to the Classroom?"
(From appendix of this book)

MATERIALS Conclusion

Field trip to Airport

5.25 SOIL CONSERVATION SCIENTIST

GRADE 5

CONCEPTS

Soil conservation affects every person in some way.
Each person can help with soil conservation measures through a knowledge of the processes involved.
The soil conservation scientist must continually study new developments and techniques in this field.
The soil conservation scientist has a desirable and productive position.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit, the students will be able to trace the water cycle by drawing and labeling it.

Description: Science exercise.

Teacher Directions: Refer to activity #2. Have each student trace the water cycle by drawing and labeling it.

RESOURCE PEOPLE

FIELD TRIPS

FILMS

"Finding Out About the Water Cycle" --MP5360

"Rainshower" --MP5282

FILMSTRIPS

*Whys of Elementary Science: "The Earth's Surface" (Set of 4) --Filmstrip House

BOOKS

Discovering Science (Text) - 5

"Teaching Soil and Water Conservation" (Booklet) --U.S.D.A.

SUPPLIES

(See individual experiments for additional supplies)

*6 boxes or plastic trays
2 flower sprinklers, ½ gallon size or cans with holes
2 fruit jars, 2-quart size
Soil of various types
10 yardsticks
10 sticks, 50" long
10 carpenter's levels or pans of flu

Packet with pamphlets

*CA Center Furnishes

ACTIVITY 1 Suggested Subject Area: Science

Show the filmstrip "Soil for Plants". Have on display soil types as shown in the filmstrip.

Then show the filmstrip "How the Earth's Surface Changes". Discuss.

Show "The Land and Water We See" and "Rocks and How They Change" if desired.

Note: This unit should be done in conjunction with pages 191-204 of the science text, Discovering Science, 5.

MATERIALS 1

Filmstrips:
Whys of Elementary Science: "The Earth's Surface" (Set of 4) --Filmstrip House

211

ACTIVITY 2 Suggested Subject Area: Science

Give each student a copy of the room set pamphlet "Conservation and the Water Cycle".

Use these to indicate the major areas of the cycle and include how this concerns the soil scientist.

There are numerous other pamphlets in the packet to aid the students' understanding and the teacher's general knowledge.

MATERIALS 2

Pamphlets in packet

ACTIVITY 3 Suggested Subject Area: Science

Activities #3-7 will be taken from the booklet "Teaching Soil and Water Conservation".

Each activity is designed to be one day.

Activity #3 - How Does Organic Matter Help Soil Structure? - V.

Follow the directions explained in the booklet.

MATERIALS 3

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

See experiment for materials

ACTIVITY 4 Suggested Subject Area: Science

VII. Find Out How Much Alive Soil Is

MATERIALS 4

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

See experiment for materials

ACTIVITY 5 Suggested Subject Area: Science

X. How Does Crop Cover Affect Soil Loss?

XI. How Does Mulch Prevent Soil Loss?

XII. What Does Contouring Do? (first part only)

MATERIALS 5

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

6 boxes 16" x 12" x 4" deep lined with tar paper

2 flower sprinklers, ½ gal. size (cans with holes punched in them will do

2 fruit jars, 2 qt. size

Soil of various types as listed in experiment

ACTIVITY 6 Suggested Subject Area: Science, Math

XIV. Measure the Slope of a Field

MATERIALS 6

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

Yardstick
Stick, 50" long
Carpenter's level

ACTIVITY 7 Suggested Subject Area: Science, Art

XXI. Make a Conservation Corner

There are many other experiments in the booklet that might be tried in addition to or instead of these mentioned.

MATERIALS 7

Booklet:
"Teaching Soil and Water Conservation"
--U.S.D.A.

See experiment for materials

ACTIVITY 8 Suggested Subject Area: Science

Show one or more of these films:

"Finding Out About the Water Cycle"
"Rainshower"

MATERIALS 8

Films:
"Finding Out About the Water Cycle"
--IMC MP5360
"Rainshower", --IMC MP5282

5.26 METEOROLOGIST GRADE 5

CONCEPTS.

Meteorologists are important to each of us.
A meteorologist must be able to accurately operate and maintain complicated equipment.
Meteorologists require technical and/or college training.
A meteorologist must be a skilled mathematitian.
A meteorologist forecasts weather for many reasons ranging from picnic forecasts to transportation safety and even protection of life.
A meteorologist must be able to infer weather patterns from his organization and interpretation of raw date which is collected in an interconnected network of weather stations.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

The students will be able to list five ways in which a meteorologist's predictions are useful.

The students will be able to identify four weather instruments and demonstrate how each is used.

1. Description: Small group discussion

   Teacher Directions: Group the students into small groups of four or five. Assign a recorder to each group. Have each group make a list of five ways in which a meteorologist's predictions are useful. Instruct each recorder to write down his group's list. (Allow ten to fifteen minutes for this activity.) Have each recorder share his group's list with the rest of the class. Compile all lists to make a class list.

   Description: Students construct, calibrate, and operate weather instruments.

   Teacher Directions: Refer to activity #1.

5.26 METEOROLOGIST

GRADE 5

RESOURCE PEOPLE

FILMS

Many weather films can be ordered from IMC

SUPPLIES

* Weather Forecaster Kit - Skilcraft
  --CA Center

Many miscellaneous materials
  --teacher

FILMSTRIPS

Whys of Elementary Science Series
* "Why Does It Rain?"
* "Why Do We Have Wind?"
* "Why Do We Have Warm and Cold Days?"
(School Library, or order from IMC)

Numerous filmstrips available from IMC

FIELD TRIPS

U. S. Weather Bureau
Boise Interagency Fire Center

(Contact Mr. James Terry)

BOOKS

* Milliken Transparency Book Weather - Packet
Yellow Pages of Learning Resources - MIT Press (School Library)
* Let's Go to the Weather Station - Hale
* Weather and Weather Forecasting - Hale
* What Will the Weather Be? - Whitman
(All from CA Center)

*CA Center Furnishes

235

5.26 METEOROLOGIST

GRADE 5

ACTIVITY 1 Suggested Subject Area: Science

Students read orally SRA Work Brief "Meteorologist".

Students will construct, calibrate, and operate one of the following weather instruments: a) Hygrometer (Discovering Science, 5) b) Anemometer c) Thermometer d) Rain Gauge (See pages at end of this unit)

Display and explain weather Forecaster Kit from Skilcraft.

MATERIALS 1

SRA Work Brief

a) Shoe box
plastic straw
large eyed needle
grease pencil or marker
16" strand of hair
cleaning fluid (alcohol will work)
glue
2 paper clips

b) round dowels
round plastic bottle

c) glass tubing
jar or beaker
ruler
marker

d) jar or beaker
marker

Weather Forecaster Kit -- Skilcraft (CA Center)

ACTIVITY 2 Suggested Subject Area: Science

Students will view and discuss set of 12 overhead transparencies.

MATERIALS 2

Overhead transparencies "Weather" --Milliken Co. (CA Center)

ACTIVITY 3 Suggested Subject Area: Social Studies, Math, Science

Students will be given maps and sets of cities with high and low temperatures for a given day. Students will identify the cities and record temperatures.

High will be recorded on ome map, low on another. Isotherms will be drawn where appropriate.

MATERIALS 3

Newspaper Weather Reports
(1 per student)

Maps of United States (blank)
(2 per student)

ACTIVITY 4 Suggested Subject Area: Social Studies

Students will assume roles of meteorologist and the people to whom he is important to discuss weather for the next day.

a. person going on picnic
b. pilot
c. wheat farmer
d. sheepherder
e. tourist driving over mountains and plains
f. rancher
g. hay farmer
h. truck driver
i. housing contractor
j. others as appropriate

MATERIALS 4

5.26 METEOROLOGIST

GRADE 5

ACTIVITY 5 Suggested Subject Area: Science, Spelling, Social Studies

Students will choose two of the following to complete.

1. Crossword puzzle
2. Choose a library book to read about weather and weather forecasting. Write a brief explanation of one part of the book and illustrate.
3. View any three of the listed filmstrips.
4. Illustrate four different types of clouds and tell what type of weather they indicate.
5. Write a brief paper on how a barometer predicts weather.

MATERIALS 5

Milliken Unit #1 Weather

Library books on weather.

Filmstrip viewers.
Filmstrips:
Whys of Elementary Science Set
"Why Does It Rain?"
"Why Do We Have Wind?"
"Why Do We Have Warm and Cold Days?"

Many other filmstrips from IMC

Text: Discovering Science, 5

Encyclopedias
Barometer

ACTIVITY 6 Suggested Subject Area: Social Studies, Science

Take a field trip to the U. S. Weather Station at Boise Interagency Fire Center, Gowen Field.

Review:
"How to Get the Most from a Learning Experience Outside the Classroom"
"How to Prepare for a Field Trip"
"How Can You Use Your Experience When You Return to the Classroom?"
(See Appendix at this back)

MATERIALS 6

Field trip to U.S. Weather Station

5.26 METEOROLOGIST

GRADE 5

ACTIVITY 7 Suggested Subject Area: Science

Go over the section "What Can You Learn About Weather Forecasting?" in Yellow Pages of Learning Resources. See how many questions they can answer.

MATERIALS 7

Yellow Pages of Learning Resources
--MIT Press (CA Center)

ACTIVITY 8 Suggested Subject Area: Science

Evaluation. Give each student a copy of units #2, #3, and #4 dittoed from Milliken Co., Weather.

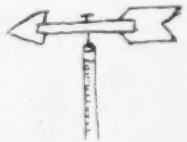
MATERIALS 8

Ditto Units #2, #3, #4
Milliken Co. Weather

WIND VANE

Materials: Pencil, pin, soda straw, two small pieces of cardboard.

Cut the cardboard pieces into two shapes as shown. Push the pin through the straw at the middle point. Now push the pin into the rubber of the pencil. Slit the straw at both ends. Slip the pieces of cardboard into the slits. Blow against your wind vane. You will notice the pointed end always points into the wind.



BEAUFORT SCALE FOR MEASURING WIND

Velocity

Less than 1 . . . . smoke rises vertically.
1 to 3 . . . . . direction of wind shown by smoke drift but not by wind vane.
4 to 7 . . . . . wind felt on face; leaves rustle; ordinary vane moved by wind.
8 to 12 . . . . . leaves and small twigs in constant motion; wind extends light flag.
13 to 18 . . . . . raise dust and loose paper; small branches are moved.
19 to 24 . . . . . small trees in leaf begin to sway; crested wavelets form on inland water.
25 to 31 . . . . . large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty.
32 to 38 . . . . . whole trees in motion; inconvenience felt in walking against the wind.
39 to 46 . . . . . breaks twigs of trees; generally impedes progress.
47 to 54 . . . . . slight structural damage occurs.
55 to 63 . . . . . trees uprooted; considerable structural damage occurs.
64 to 75 . . . . . rarely experienced; accompanied by wide-spread damage.
Above 75 . . . . . hurricane.

BAROMETER

Materials: large bottle, glass tube at least 6 inches longer than bottle, rubber stopper with hole in it, colored water

Pour water into the bottle to a depth of about one inch. Put the tube through the stopper and then into the bottle. The lower end of the tube should be about ½ inch below the surface of the water. Press the stopper in firmly. Blow a bit of air into the tube, enough to send two or three bubbles into the water. The water should rise about halfway into the tube. Then blow a few more bubbles, to bring the water still higher. Keep on blowing until the water in the tube is about 2 inches above the stopper. On a white card make a line 5 inches long, marked off every ¼ inch. Number the marks from 0 to 20. Cut two slits in the card and slip it over the tube.

HYGROMETER

Materials: two thermometers (type with exposed bulb), gauze, small dish

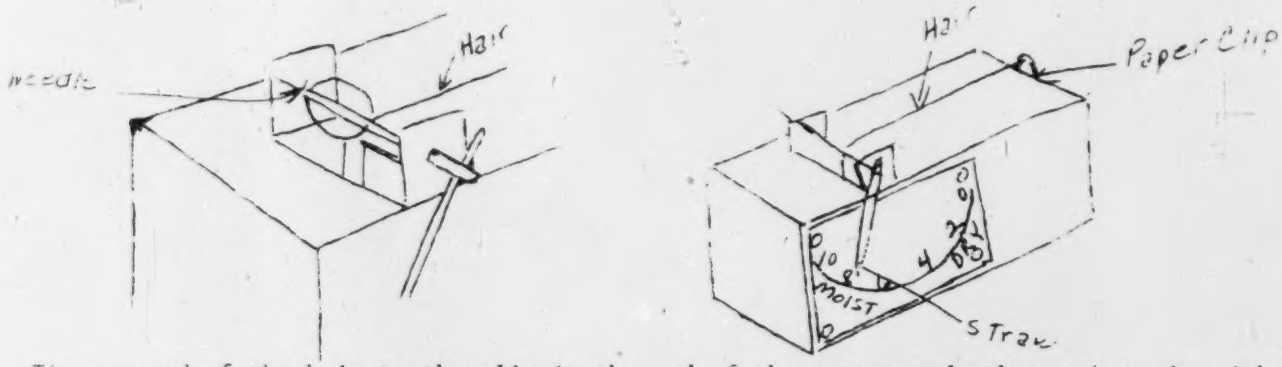
Attach with a rubber band a piece of porous cloth such as gauze around the bulb of one of the thermometers. An inch or so of the gauze should extend from the thermometer to act as a wick. Place the wick in a small dish of water. Place thermometers side by side. Before reading fan the air vigorously in front of the thermometers. Take reading of both. Relative humidity is obtained through chart.

HYGROMETER

Materials: milk carton, a nickle, needle, one broom straw, one paper clip, plastic tape, nail polish, a card, four thumbtacks, a long hair. (Hair should be washed and dried)

Cut a long H near one end of the carton. Then bend up the two tabs of the H and make a hole in each with your needle. Twist the needle until it can move freely in the holes. Cut a piece of broom straw about 3 inches long and push one end of it into the eye of the needle. This will be your pointer. Fasten it with a dab of nail polish. Make a card as shown and attach it with thumbtacks. Cut a slit at the far end of the carton and put a paper clip halfway in, as in picture. Fasten the paper clip securely inside with plastic tape.

HYGROMETER (continued)



Tie one end of the hair to the clip in the end of the carton and other end to the nickel, fasten with a drop of nail polish. Put the needle and strawpointer in place. Now pass the end of the hair with the nickel under and around the needle. Let the nickel land inside the carton, through the slot. The weight of the nickel will keep the hair tight. The damp air causes the hair to become a tiny bit longer, causing the needle to turn. The needle moves the straw pointer toward the higher numbers on the card. In dry air the hair shrinks, moving the pointer toward the low numbers. To set hygrometer, put it in a basin with a damp sponge close by but not on it. Use a damp towel as a cover. Leave it for about ten minutes, and then take off the towel and immediately set the pointer to number 10.

RAIN GAUGE

Materials: A large jar or can (If can is used it should be painted), a smaller bottle with straight sides, paint or nail polish

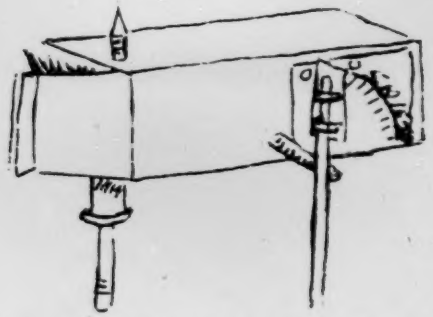
Pour water into larger container to the depth of one inch. Then pour this water into the smaller bottle. Mark on the bottle with paint or nail polish the line where the water reaches. Divide this into ten equal marks. These marks now represent tenths of an inch. The large container is left outside to catch rain. Then the water is poured from this can into the bottle for measuring.

SIMPLE WEATHER INSTRUMENTS

PRESSURE PLATE ANEMOMETER

Materials: Milk carton
2 pencils
plastic tape
1 straight pin
drinking straw
nail (about 3" long about as thick as the straw)

Cut a piece 2" by 1½" out of the bottom of the carton. Attach this with plastic tape to one end of the straw. Slide the nail into the other end and fasten it there with plastic tape. Then attach the whole thing with a pin to the eraser of a pencil. Push a spool halfway down the other pencil. Then push the pencil into the carton at one end. Wiggle the pencil to make the holes just large enough for a loose fit. Then push the pencil with the drinking straw into the middle of the carton. Attach a sheet of paper to the carton as pictured. This is the scale.



This scale may be calibrated at the weather station or in an automobile. For calibration in a car, hold gauge outside window while car is going a steady 5 miles per hour and mark scale. Continue at increasing speeds of 5 miles until straw is almost level. The carton will turn with the wind for wind direction.

ANEMOMETER

Cut 2 table tennis balls in half. Cut 4 dowel rods of equal length, about 8 inches long. Saw 2 slits near the end of each of the rods as far apart as the diameter of the balls. Glue half of a ball in each set of slits making sure that all face the same direction. Cut a 3 inch square of wood and bore a hole the diameter of the dowel rod in the 4 cut sides of the block. Fit dowel rods in holes facing cups the same direction. Fit a dowel rod 12 inches long into a hole bored in the center of the block. Make a square wooden box leaving one side open. Bore a hole a little larger than the dowel rod through the top of the box and bore a shallow hole directly below it in the bottom of the box. Sandpaper and wax the hole in the bottom of the box. Shape the bottom of the rod so it will move freely in the shallow depression. Paste a colored strip of paper one-half inch wide around the rod with one end projecting. This should be about an inch up from the bottom of the box. Drive a nail in close to the rod so the paper will strike it each time the rod turns around. By counting the revolutions per minute, wind speed can be estimated.

THERMOMETER

Materials: Coke bottle, cork or clay for stopper (with hole in it), plastic or glass drinking straw

Fill the bottle to the top with colored water. Then insert stopper, with straw in it which forces water part way up the tube. Glue a narrow strip of white cardboard to the tube. Compare the height of the liquid in the tube with readings from a real thermometer, and mark.

5.27 TIRE INDUSTRY WORKER — GRADE 5

CONCEPTS

Transportation has a major role in our highly mobile nation.
The tire industry is an important by-product of this as well as being a major product of the rubber industry.
The tire industry is a major force in our nation's industrial system, being a part of many things.
The tire is a major product in the rubber and synthetic rubber industry.
There are many different jobs in the tire industry.

PERFORMANCE OBJECTIVES AND CRITERION TESTS

1. Upon completion of this unit, the students will be able to demonstrate an understanding of the different jobs in the tire industry.

   Description: Tracing a spool of tread through a tire plant until it ends up a tire on a sports car.

   Teacher Directions: Refer to activity #4.

RESOURCE PEOPLE

Local tire dealer

FIELD TRIPS

FILMS

"Northeast - Gateway for a Nation" --IMC MP1253

FILMSTRIPS

*"The Story of Rubber" --SVE

BOOKS

New Dimensions in Mathematics (Text)
--Harper and Row

Merit Student Encyclopedia
World Book Encyclopedia
The Magic of Rubber --Dreany

SUPPLIES

Rubber balloon
Rubber band
Rubber ball
Water bottle
Dry cell battery
Wire
Bell

Optional:
Inner tube
Tire pump

*Charts: Rubber and Tire Production Flow Charts

*Pamphlets: Wonder Book of Rubber
Rubber
Miracle of Rubber
The Story of the Tire
Charles Goodyear and th
Strange Story of Rub
Tire Guide

*Teacher's Manuals: Story of Rubber
Rubber

Telephone Directory

*CA Center Furnishes

5.27 TIRE INDUSTRY WORKER

GRADE 5

ACTIVITY 1

Suggested Subject Area: Science, Social Science

Show filmstrip.

Look over "Wonder Book of Rubber".

See suggested approaches in Teacher's Manual for "Story of Rubber", page 5.

Suggestion: Students pick area; each group explore area and pick related activity.

Do culminating activity. See page 7. (Optional)

MATERIALS 1

Filmstrip:
"The Story of Rubber" --SVE

"Wonder Book of Rubber" (one copy per student)

Flow Chart: Rubber and Tire Producti

Teacher's Manual for "Story of Rubber

Other reading material in packet

ACTIVITY 2

Suggested Subject Area: Science, Social Studies

Go through telephone directory to find out how many tire dealers there are in a given area. (Be sure to designate area.)

Make bulletin board of different uses of the tire and rubber or of a collection of rubber products.

List of different kinds of tires.

Suppose you were to have your own tire shop. What tires would you sell?

Drama or roleplaying: Main character - a wheel
Object - convince everyone how important he is

Math: Find out what sizes on a tire mean and make up some math problems you would use if you worked in the tire industry.

List as many different jobs as you can related to the tire industry. Pick one and write a story about how work might be.

MATERIALS 2

Telephone Directory

Merit Student Encyclopedia

Tire Guide

All material in packet

ACTIVITY 3

Suggested Subject Area: Science

Object: to show that rubber has these properties:

a. Airtight
b. Absorbs vibration
c. Elastic and flexible
d. Waterproof
e. Adhesive
f. Nonconductor of electricity

Tell students to suppose that they are going to build a tire and they feel that rubber might be a good product to use to build it. They are to test certain properties and explore why rubber is one product that might be used in a tire.

Divide class into six groups. Each group is to perform an experiment to test one of the properties listed above.

Have students try to think of other products that would have the same properties and could be used in making a tire. Remember, a tire is made from a combination of products.

What other properties should the material in a tire have?
(i.e. strength (why steel belt or cord), wear)

Discuss briefly why tire has (1) air - called PL
(2) plies - layers of fabric
(3) beads - two strips of metal that hold tire together

(Continued on next page)

MATERIALS 3

Balloons and/or inner tube with pump
Rubber cement
Dry cell battery
Bell
2 wires
Small piece of rubber
Rubber bands
Water bottle

Teacher's Manual for "Rubber" (page 2)

ACTIVITY 3 (Continued) Suggested Subject Area: Science

Have stations set up around room for groups to perform experiments. Either have each group perform one experiment and report to class the results or have groups move from station to station so that each student helps perform each experiment.

Experiments:

1. Airtight - Blow up ballon or pump up inner tube or ball.

2. Absorbs vibration - Walk across a hard floor in shoes with hard leather heels and then in shoes with rubber heels. Compare difference in absorption of shock and noise.

3. Elastic and flexible - Stretch rubber band. Find other materials. Do they stretch?

4. Waterproof - Fill balloon or rubber glove or water bottle with water. Test some other material. Is it waterproof?

5. Adhesive - Glue pieces of paper or cloth with rubber cement.

6. Nonconductor of electricity - Demonstrate with a dry cell which is connected to a bell by two wires. Cut one of the wires and scrape the two ends bare. Touch the two bare ends with a piece of copper wire. The bell will ring because copper is a good conductor of electricity. Touch the ends with a piece of rubber. Try wood, glass, paper, silver.

Other: Compare various materials for absorption of shock and noise, strength, and wear.

ACTIVITY 4 Suggested Subject Area: Creative Writing

Pretend you are a spool of nylon thread. Trace your trip through a tire plant until you end up a tire on a super-sports car.

Tell about some of the workers you met on the way.

MATERIALS 4

Merit Student Encyclopedia

World Book Encyclopedia
(1971, Vol. 18-T, pages 232-234)

Pamphlets:
The Story of the Tire --Goodyear
(pages 9-13)
Rubber --Firestone (page 27)
Miracle of Rubber (page 10)
Wonder Book of Rubber

Rubber and Tire Production Flow Charts

Today and Tomorrow (pages 14-15)
(different kinds of tires)

ACTIVITY 5 Suggested Subject Area: Reading

Read story "A World on Wheels" (pages 47-59). Emphasize the workers involved in the story.

Read following poem "Feet and Wheels" by Leon Trachtman:

Feet stroll.
Wheels roll.

Walkers, using soles and heels,
Are passed by speedy folks on wheels.

But
Plain old feet
Let people meet,
Let them visit, let them talk,
As they stand and as they walk.

Rolling wheels upon a car
Take people fast, take people far.
But as they're rolling here and there,
People mostly sit and stare.

Walking feet make paths, and where paths cross.
People stop to chat about the weather,
Chat about their children, pets, and boss. . .
Crossing paths bring people close together.

Rolling wheels need highways smooth and wide
So cars can keep on speeding once they start,
And all the rushing people sit inside
As closed-up autos hold them far apart.

Feet are useful; so are wheels.
Both used well make life complete.
Just don't let wheels make you forget
The uses of your precious feet.

MATERIALS 5

The Magic of Rubber --Dreany

5.27 TIRE INDUSTRY WORKER

GRADE 5

ACTIVITY 6

Suggested Subject Area: Math

MATERIALS 6

Equate the decimal point to tire size.
Example: 6.50 x 17 (first number is the width of the tire in inches, so 6.50 means the tire is 6½ inches wide across the tread)

(second number is the diameter in inches of the wheel that the tire goes on, so 17 means a wheel 17 inches in diameter)

Problems:

1. Which tire would have the widest tread?
   a. 7.50 x 17
   b. 6.00 x 14 (answer is c.)
   c. 8.50 x 13

2. Of the above, which tire would fit the larger wheel? (answer is a.)

3. John took the above tires and has the wheel for each lined up on edge on the floor. Which wheel is taller? (answer is a.)
   Which is wider? (answer is c.)

Make up other problems or have students make some of their own.

Extra: Find out if any students know someone in the tire industry. See if they can obtain (1) a chart showing stopping rate of cars, (2) chart showing different kinds of wear.

Text:
New Dimensions in Mathematics
--Harper and Row (page 309)

Tire Guide

World Book Encyclopedia
(1971, Vol. 18-T, pages 232-234)

A good description of tire and how constructed and different kinds (i.e. bias, radial, etc.)